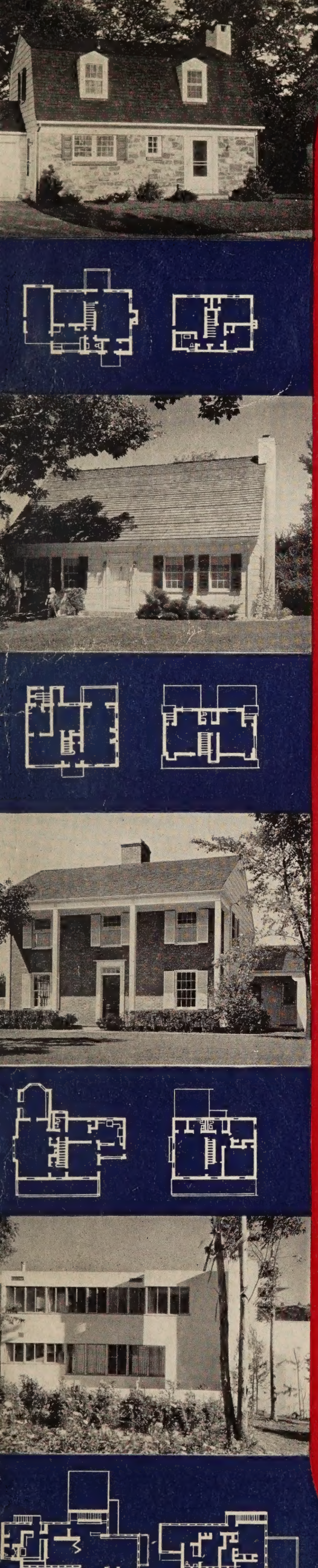

NEW IDEAS FOR

Building Your Home

Better Homes & Gardens' book of selected home plans

☞ **130 selected homes with photographs and plans**

☞ **Financing your home** ☞ **Building your home**

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NEW IDEAS FOR

Building Your Home

Special New and Improved Edition

To make your study of this book as simple and easy as possible, and to enhance its service possibilities, it has been divided into four sections—to parallel, in a way, the divisions of your main undertaking. The first section accompanies you on your visits with financial agency, realtor, architect, contractor, and tax and assessment officials. The second section, "Gardened Homes," takes you on a tour of the nation's outstanding residences, and covers a large variety in style and design, size and cost. The third section, "Bildcost," goes with you, if you wish, even further—offers you the choice of 60 beautiful home designs with complete specifications and working drawings for them. The fourth section accompanies you thru the actual construction of your new home to the landscaping of it afterward.

COMPILED AND EDITED BY JOHN NORMILE, A. I. A.

Director, Building Department, *Better Homes & Gardens* Magazine

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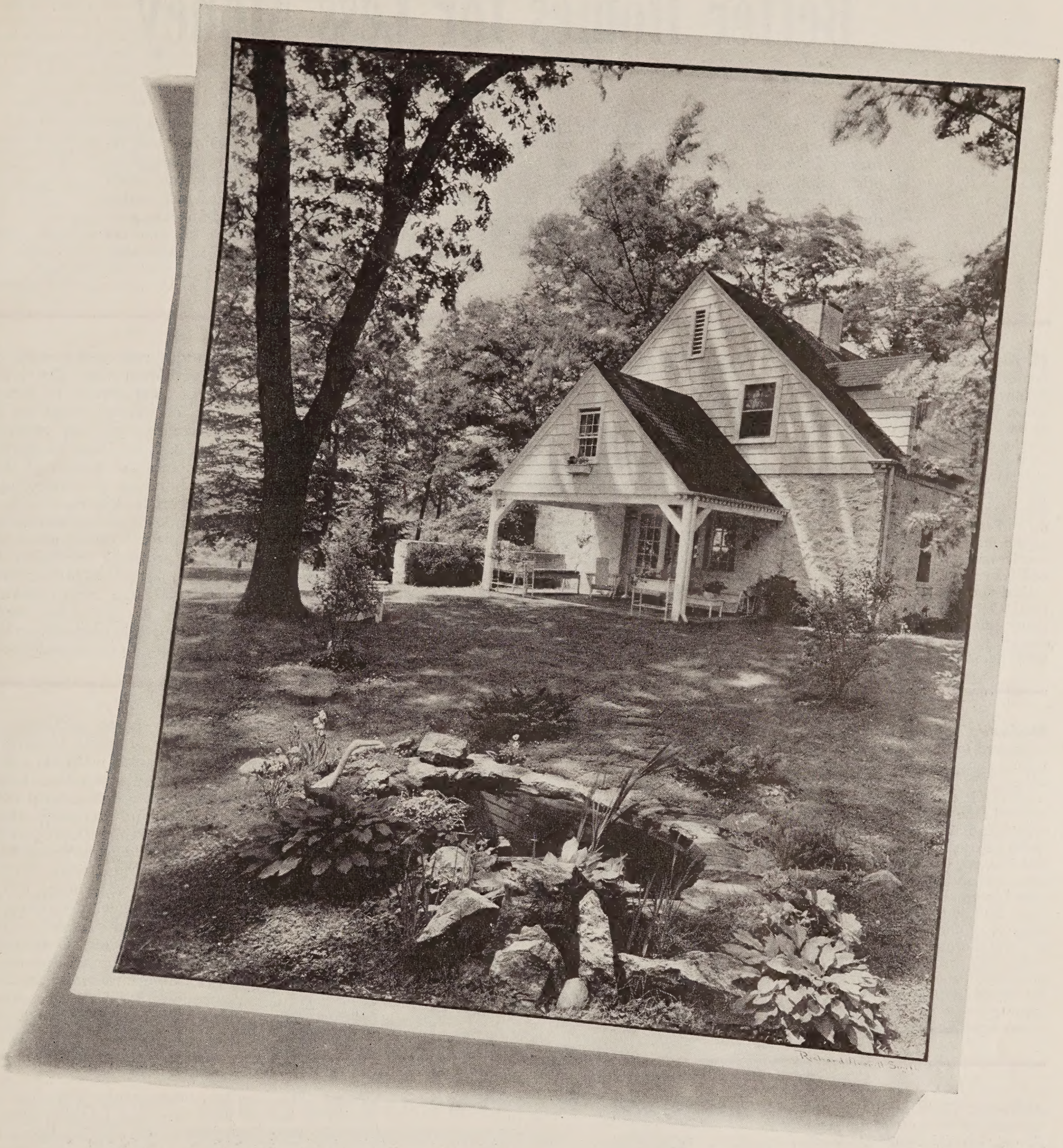


REFUGE

UNDER a towering oak, whose shadow mingles with that of an ingratiating porch, one might dream away whole days and be richer than when contending noisily in the market places. Here the world is shut out—and why should the world, with its absurd quarrels, intrude? There are more important things than strutting dictators or bellowing demagogs . . . for instance —two very small flowers beside a still pool, and a path leading to a house where peace lives.—E. T. P.

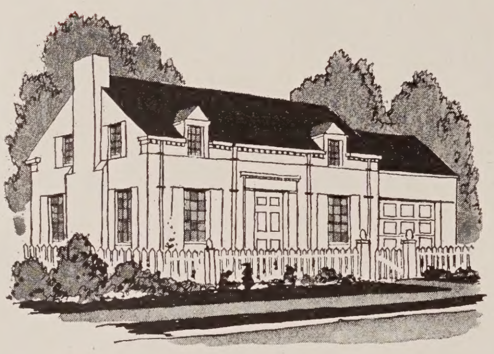
[See page 118 for additional photographs of this home]

Better Homes for Less Money

HERE are seven major reasons why building a house now is the best investment you can make! Labor-saving devices on the job have offset what you may imagine to be high labor costs. Improved materials and equipment produce a vastly improved home compared to one built even a decade ago. Intelligent details and planning give you convenience and low maintenance unequaled heretofore. Everything contributes to *increased* value per cubic foot and *decreased* cost per cubic foot. One of the big assets of the depression is the intensive research which was expended on every single item which makes up a home. FHA financing makes for easy payments and security, for ownership, not rent receipts. Only you stand to profit. You can't lose.

BETTER DESIGN

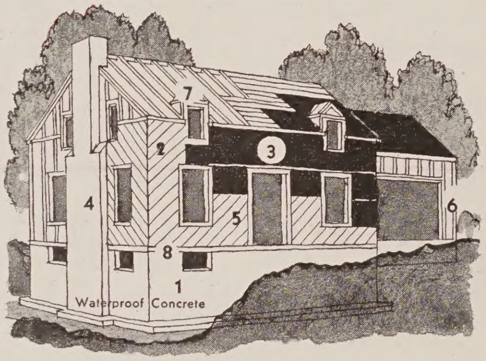
Before: During the Twenties homes went in for picturesque effects which cost both money and space. Walls were stepped forward or back to produce restless effects on the exterior and complications on the interior. All manner of materials were scrambled to comprise the exterior. Window area was often inadequate. Roofs were cut up and extravagant, inviting leaks at the many intersections. Heavy cornices served only to darken second-floor rooms. Garages were detached and not considered important. On the inside there were many small rooms but few large enough to serve with elasticity the many demands of a growing family.



Now: The house of today reflects our good common sense and our American background. The builder has found there's a profit in good design. In recent years the architect has had few opportunities to do large buildings and so has concentrated on producing the best house for the least money. Plans by distinguished architects for Bildcost homes are typical of the movement to popularize the home in the best of taste with the elimination of unessentials. Exteriors utilize simple wall surfaces and are composed of few, but harmonious, materials. Roofs are simple in form, improved in details and color. Cornices project a minimum. Muntins divide window panes into agreeable proportions. Stock doors and entrances can be had from catalogs which reflect the best taste. You get fewer but larger first-floor rooms, planned to be used in conjunction with each other, as living-dining-room, or dining-alcove-kitchen.

BETTER BUILT

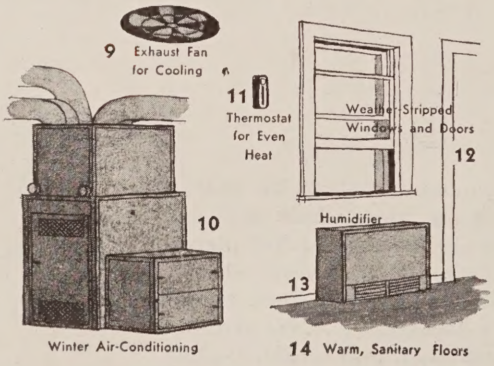
Before: The builder of the past, compared to one of today, had to have a more intense desire to produce a thoroly good home, because materials left much to be desired. Water in the basement was a common complaint. Damp basement floors were taken for granted. Lumber was not up to today's standards, and framing faults often resulted in cracks, squeaks, and sagging. Building paper was neither waterproof nor vermin-proof. Waterproof mortar for exposed brickwork and fireclay linings for all flues were not the general rule. Construction practice varied according to the conscience and experience of the contractor chosen.



Now: Manufacturers have spared nothing in continuous research to perfect their products. Waterproof concrete for the basement floor and walls (1) can now be guaranteed against leaks and dampness. Lumber for sheathing (2) and underflooring comes with the ends as well as the sides tongue-and-grooved, which adds strength, and saves material, nailing, and labor. Building paper (3) is made vermin- and waterproof. Mortar no longer gives off efflorescence, and when waterproofed mortar is used (4) the result *is* waterproof. Fireclay flue linings insure a fireproof chimney. Improved windows (5) come prefabricated, prefitted complete with weatherstrips, screens, and winter glazing. Overhead garage doors (6) function perfectly. Copper gutters, leaders, valleys, and flashing (7) require no attention after installation. Termite protection (8) of sheet copper at the top of the foundation walls is an invaluable insurance.

BETTER HEALTH

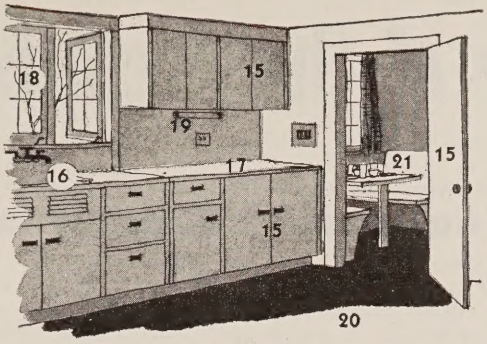
Before: The house of yesterday provided poets with many sentimental refrains, and the family with many unnecessary colds and winter complaints. In the winter the air was either hot and dry, or cold and damp. The fire was too active or too lazy. Drafts made the curtains blow and the feet chilly. On mild days the temperature was likely to be too high, and on extremely cold ones too low. In the summer the kitchen became unbearably hot from cooking, and torrid bedrooms prohibited sleep. During cold months the only moisture came from cooking and washing. Dust from the old heater reposed in floor cracks and in joints.


9 Exhaust Fan for Cooling
11 Thermostat for Even Heat
Weather-Stripped Windows and Doors
12
10
Humidifier
13
Winter Air-Conditioning
14 Warm, Sanitary Floors

Now: The modern house pays dividends in better health at such a high rate that in preventing a single crisis it more than repays the original investment. Exhaust fans (9) in the kitchen and second-floor ceiling make the house enjoyable when it otherwise might be depressingly hot. Winter air-conditioning (10), with its humidified, cleansed, heated, and circulated air, is a boon because of fewer colds and only negligible dust in the home. (Special air-filter devices will take the pollen out of the air for those who suffer from hay fever.) Automatic controls like the thermostat (11) make for even heat and consequent better health, in addition to saving fuel. Windows and doors are provided with weatherstrips (12) and winter glazing, thus eliminating 25 percent of heat losses and drafts. Humidifiers (13) provide necessary moisture for homes with radiated heat. Floors (14) offer a maximum in both warmth and sanitation.

BETTER OPERATION

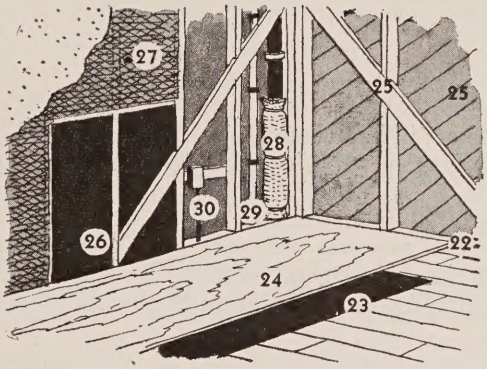
Before: Even so recent as a decade ago houses didn't spare the homemaker. It was taken for granted that there would have to be daily dusting and cleaning, and every door did its bit to command attention. Toe space under kitchen sinks and cupboards was uncommon. Kitchen sinks were open below and open to criticism above. Faucets and handles were hard to clean. Countershelf work-space, range, and sink in the kitchen were scattered as a pack of cards, with no thought of sequence or continuity. The normal kitchen had a single ceiling light, and if the homemaker was always in her own shadow, she thought nothing about it.



Now: Today's home is more livable than yesterday's because daily household duties have been lightened and conveniences increased. Doors (15) are "flush" (smooth without panels) to eliminate dust-catching mouldings. Kitchen sinks (16) have ample drainboards, chromium faucets and handles that are easily cleaned, and convenient storage cabinet space below. Countershelves (17) are as continuous as possible, being the same height as sink and range. Both casement and double-hung windows (18) are now made so that they can be readily cleaned from the inside. Tubular lights (19) placed below the upper tier of cabinets or over the sink provide illumination where it's most needed. Grease-proof flooring material (20) now can be laid directly on concrete slabs without danger of its coming up. Rooms adjoining the kitchen (21) are laid out so that a minimum of effort is necessary today to prepare and to serve meals.

BETTER PROTECTION

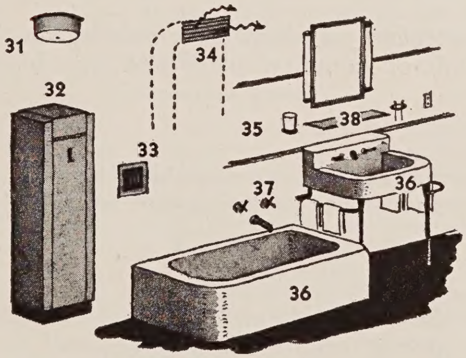
Before: Homes have always been subject to fire, noise, floor irregularities, wind, cold, heat, moisture, plaster cracks, freezing pipes, and overloading the electric system. But the house of former years didn't exert itself to improve protection against them. The fire department was called in case of need. Noise was taken for granted. Wind and cold were combated with more fuel. Heat and moisture were accepted philosophically. Plaster cracks were considered inescapable. Electric wiring wasn't scientifically laid out. People contentedly said, "We have a roof over our heads," and luckily didn't know what kind of house 1940 held.



Now: The composite detail at the left, representing an outside corner of a bathroom, is typical of what the present home-builder gets by way of protection. Between studs at the floor there are fire-stops (22) to prevent the spread of fire between walls. Floor sound-deadening (23) minimizes sound transference. Doors are made practically noise-proof. Linoleum floors lie perfectly flat without a ripple when laid over plywood (24). Cross-braces on the inside of studs and diagonal sheathing on the outside of studs (25) resist wind stresses. Insulation (26), protected by moistureproof paper, excludes both heat and cold. Expanded metal lath (27) is insurance against plaster cracks. Hair felt (28) wrapped around soil (sewer) pipes deadens bathroom sounds. Asbestos air-cell insulation (29) prevents pipes from freezing in outside walls. An improved electric conduit system (30) is protection against overloading.

BETTER EQUIPMENT

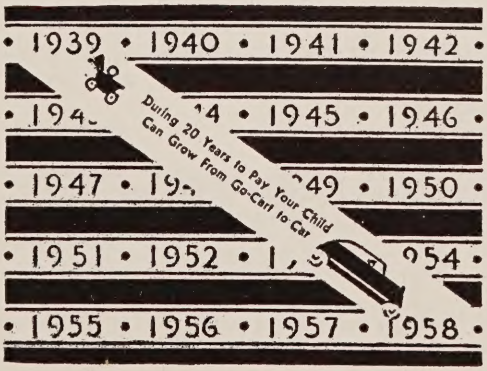
Before: The not-so-old house had inadequate lighting as a rule, with fixtures neither beautiful, sanitary, nor efficient. Generally the hot-water heater sulked in the basement and often turned cold. Rust-corroded pipes dripped water resembling diluted coffee. When a fuse blew out you'd spend an evening screwing and unscrewing fuses in the basement, and calling upstairs to find out what had happened. Bathroom fixtures required lots of rubbing and cleaning. Soap-holders and towel bars weren't beautiful. Wallpaper resented being washed, wallboard had its drawbacks, and stainless steel tile hadn't, at that date, been invented.



Now: The improvement in modern equipment is outstanding as regards easy maintenance, plus improved appearance and quality. Lighting (31) thruout the home has undergone scientific study. Sleek hot-water heaters and automatic storage tanks (32) are above reproach, with their economic performance and supply of rustless water. All water pipes are copper. The recently developed "load center" (33) consists of a neat panel in the kitchen with a series of switches, eliminating the necessity of fuses. Warm-air registers (34) are inconspicuous and furnish heat when wanted in a few moments' time. Wall-surface materials of all kinds (35) have improved enormously, being washable, stainless, and marvelously adaptable to all sorts of conditions. Plumbing fixtures (36) are simpler and easier to clean than ever, as are faucets and handles (37). Bathroom accessories (38) are little or no trouble to keep spotless.

BETTER FINANCING

Before: Until the last few years building a house was something of a gamble. You picked out a lot you liked, built a house you believed to be all right, and got a mortgage which ran for say five years. At the end of that period you applied for a renewal of the mortgage, and if lucky (by virtue of paying what was often an exorbitant rate which might run as high as 10 percent) went on for another five-year stretch. If times were bad and the holder of the mortgage was so hard-pressed he wouldn't renew it, foreclosure proceedings were begun. Unless you could raise the money somehow, you lost your home and all you had put in it.



Now: Until the advent of FHA financing you did your own guessing as to intrinsic value of site, type of house, suitability to site, trend of neighborhood, and type of construction. Now all that responsibility is off your shoulders. You apply for a loan, submit plans and specifications, and if the report is unfavorable, you have the satisfaction of knowing you were spared taking a potential loss. If the report is favorable, you receive the loan and can build with the assurance that several experts in different fields agree that your proposed home is a sound undertaking. They have approved plans, materials, and site, checked your ability to pay regularly, and are satisfied you'll be living within your income. The monthly installments carry on for twenty years, in a form similar to rent, but with the gratifying difference that at the end of this time you own not a mere wad of rent receipts, but your own home free and clear.

The Value of the Architect

Eight Reasons Why You Should Employ an Architect

I In illness one needs a Doctor; in legal matters a Lawyer. A building with its infinite variety of modern facilities for comfort and health and its claim for beauty needs the Architect.

II The Architect has expert knowledge of building materials and construction methods, and how best to plan for the installation of plumbing, heating, lighting, and insulation.

III A building is a better investment if well planned and attractive in appearance. Only the trained Architect can make it so.

IV Both Owner and Builder depend on competitive bidding for fair prices. Fair competitive bidding depends on complete plans and specifications drawn by an Architect.

V The Owner needs the supervision of an expert unbiased by commercial considerations to pass on the quality of the materials and workmanship going into his building.

VI It needs no argument that the Owner's interests are best served by the Architect who has devoted years to special training for his work and therefore must be more intelligently qualified than the man with other interests, obligations, and training.

VII From start to finish of a building operation the Architect is the Owner's professional adviser and representative—in drawing contracts, complying with building codes and lien laws, certifying building charges, and seeing thruout that the Owner gets what he pays for.

VIII Architectural services are a small fraction of the total cost of a building. A good Architect often saves the Owner a sum much larger than his fee.

How to Buy or Build a Home: Be a hard-headed Doctor Ask-Em and find out what you're really getting

Love, sympathy, and understanding in a family can make spiritually beautiful the humblest home. But they won't make the roof shed water nor the foundation stronger. And it can still be a long way to schools and stores and town, and close to the glue plant!

Legal Procedure: Watch that real estate! It's not yours until you have a title.

TO MR. Average Citizen, the business of buying real estate is pretty much of a mystery before he gets himself into it—and not infrequently a most awful headache and disillusionment before he's thru.

Yet there's actually nothing so very complicated or perilous about real-estate deals. But it's a good idea to look up some reliable realtor in whom you have confidence and let him handle the transaction, or at least advise you in it.

Legal instruments

Two things you'll need—(1) a valid and sufficient *deed*, and (2) a clear *title*.

The *deed* is the written, legalized evidence of the transaction between the seller (also known as the vendor or grantor) and the buyer (also known as the vendee or grantee).

The *title* is the document proving the right of ownership and possession of the present owner to the real estate. It also shows the history of the property from its first owner down to the present transaction.

Most real-estate buyers realize the need of a valid, properly executed deed to property, *but many of them find out too late that the title is even more important*. For, unless the buyer is certain that the seller has a clear title—that is, the right to dispose of the property—a deed may be just so much paper.

Your protection

There are three methods used in this country to determine the question of title. In some sections, particularly in the East and West Coast States, what is known as *Title Insurance* is used above or in combination with *Abstracts of Title*. In a few states the *Torrens System of Title Registration*, where the title comes directly from the state, is used. Probably in the greatest number of states, Abstracts of Title are employed almost exclusively. Each of them involves a search of the proper public records.

These public records, as set up in the American Recording System, are unique to this country and are the final appeal in regard to all real-estate titles. It's here that all deeds, to be valid, must be recorded or registered. Only that which appears in the proper public office can have any legal effect on persons who weren't parties to the transaction in question and have no other actual knowledge of it. Keep that matter in mind.

Anyone may examine the public records in an attempt to determine the status of a title, but because of the extent and complexity of these records today, personal search in most localities is practically out of the question. The job requires specialized knowledge. The needed information may appear in numerous volumes and records, scattered thru several public offices.

Who's the man to see?

To solve this problem we have "Abstracters" or "Titlemen"—experts who maintain, at an outlay of thousands of dollars, a system of indices which extends back to the beginning of public records in their particular counties and which is arranged according to real-estate descriptions.

A competent abstracter's report is your surest way of checking on a title. Such report is an *Abstract of Title*. It's actually a complete record of all transactions involving the piece of property in question from the time it was turned over by the United States Government to the hour of current transaction. The correctness of the abstract is, in most states, guaranteed by the abstracter's bond, which is sufficient should any error be made in the compiling of the abstract. Title insurance and the Torrens system of registration use the same general method.

If so, and if not

If the *Abstract of Title* submitted to you shows the title to your desired property apparently to be clear, you can be reasonably certain that the seller really has something to sell, and that the real estate will be legally yours after you've paid for it.

If the title is not clear, refuse to consider the proposition at all until this title is completely cleared. As an additional safeguard, it's best at this point to take the abstract to a reputable lawyer who's acquainted with examining titles, and get his *written* opinion. If he says you have a merchantable title, free of all encumbrance, you can feel free to go ahead.

Step by step

Finally, let's assume that the *Abstract of Title* shows the title to be in order and it has been approved by your lawyer. You're agreed on a price with the seller and will now arrange between you the method of payment. You may, of course, pay spot cash and close the deal immediately. More likely, you'll wish to buy by installment payments. In this event, you and the seller enter into a *contract* in which you agree to purchase the property at the price and for the terms agreed upon. You may now make a small binding payment which, by the terms of the contract, is returned to you if the seller proves, after all, not to have clear title.

What the contract provides

In the contract you may agree to pay so much down and so much each month until the contract price, plus interest, is paid. You should also include in the contract the stipulation that you'll have the privilege of paying off the debt in advance of schedule.

In addition, your contract should state that when a certain percentage (usually 50 percent) of the purchase price has been paid, you're to receive the deed, *and* the Abstract.

If you've any question that the realtor or the person who draws the *deed* may not be competent to draw such documents, feel free to take it to the attorney who examined the *Abstract of Title*, and get his opinion on it before you finish paying the purchase price. If it's in order, you can now accept it and make a mortgage and note for unpaid balance.

Your next step

After receiving your deed, see that it and the mortgage are *recorded at the Court House* in the county in which your property is located. The deed will be returned to you as evidence of your title; the mortgage and note will be held by the original owner until final payments are made.

When this mortgage is fully paid, you'll receive from the holder of it a "satisfaction of mortgage" which you'll also file at the Court House. And finally, at this time, unless you've received it before, you'll also be given the up-to-date Abstract of Title, or in some states, a Torrens Certificate, or a Policy of Insurance. This document now *proves* definitely the property is yours and that it carries a clear, marketable title.

Location: A city map and city directory will help you check the answers to these questions about locating your new home.

1. *How far is it to:* Schools for the children? . . . A bus or trolley line? . . . Grocery, drugstore, gasoline station? . . . The breadwinner's work? . . . Church?

2. *Is there a direct route to the downtown district, or do you have to go "clear around Robin's barn"?*

3. *What is the general appearance of the neighborhood?* . . . Are the streets clean and well lighted? . . . Is the neighborhood still developing, static, or deteriorating? . . . Are the other homes well kept?

4. *Do tenants or home-owners make up the majority of your future neighbors?* (Your city directory will also help you answer this one.)

5. *Is the neighborhood restricted to "single-family" homes, or merely to "residential uses"?*

6. *Will your home be in keeping with the rest of the neighborhood?*

7. *How heavy will the traffic be on your street?*

8. *Will you and your family take pride and pleasure in living on that spot now and for years to come?*

The piece of earth that you select has been there an awfully long time, so be sure you like it and that you won't want to change it much.

Financing:

Here is not only a check list of information you should have about obtaining money for home-building, mortgage payments, taxes, insurance, and the like—in easy question and answer form—but also here's a set of tables to tell you accurately what the costs of home-ownership will be. See also preceding pages for advice about buying property and ownership responsibilities.

PRELIMINARY:

1. *Where can a home be financed?* Building-and-loan associations and life-insurance companies, thru local mortgage agents, make the bulk of institution-financed home-mortgage loans. Banks also are beginning to solicit FHA-insured mortgages in considerable quantities.

2. *What is more desirable—an FHA loan or an uninsured loan?* FHA financing is designed particularly for the man who *must* have an 80 or 90 percent loan for the maximum term of years possible in order to be able to start the purchase of a home. Under present conditions, the man who doesn't have to have maximum-percentage financing can obtain it on terms often even more favorable than FHA rates, without the necessity of complying with Federal regulations. Before you commit yourself to any loan, know what *all* the costs will be.

3. *Should you borrow from an institution or an individual?* Corporations (as are practically all building-and-loan associations, banks, and life-insurance companies) are less likely to die or move around and are better able to meet your needs over a long period. Select a reliable local institution for well-informed, efficient, and sympathetic handling of your home-financing problems.

4. *Why is the monthly-payment mortgage preferable to the 3-, 4-, or 5-year term mortgage?* If you get your income once or twice a year, it's not preferable. Most of us get monthly or bi-monthly pay checks, tho, and it's easier to pay monthly than in a lump sum once or twice a year.

5. *How can you be sure your house will be completed by the contractor for his contract price?* Be sure that he furnishes a *construction bond* written by a surety company.

6. *Should the loan be obtained before the house is started or purchase arranged?* Either you should actually complete signing the loan papers or you should have a definite commitment from a reliable company setting out loan terms and naming all the conditions to be met before the loan is completed.

7. *Why bother about completion guarantees and loan commitments?* Because: (a) If the contractor starts a house on your lot and anything happens to keep him from finishing up, it's your trouble as much as his. (b) A house can't be built overnight, and loan markets can change drastically in 70 to 90 days.

8. *Should you accept the house from the contractor before it's finished?* The contractor is entitled to his final payment when every item covered by the specifications is complete, and not before.

MORTGAGE PAYMENTS:

1. *What is interest?* Interest is the wages you pay to hire the use of money. Six-percent interest on money you borrow means you pay $6 for the use of $100 for a year. Five percent means you pay $5. When you return some of the money you've hired, you stop paying wages on the amount you return.

2. *What is a monthly-reduction loan?* It's one on which the note provides that after the current month's interest is taken out of the payment, the balance is applied to, and reduces, the unpaid principal.

3. *Why should you pay taxes and insurance each month with the principal and interest payment on the loan?* So you can borrow money at a cheaper rate of interest. If, by making such payments, you in effect guarantee payment of taxes and insurance, the risk to the lender is definitely decreased and he can lend you money at a lower rate.

4. *Why is it important to make each monthly payment on or before the date specified?* Chief reasons are: (a) It's good business from a credit-rating angle. (b) The maximum profit the lender can make on your note is defined exactly by the interest rate. The lender has to get the money from some source and the margin of profit is usually very small. Payments *must* come in promptly for him to make that profit. (c) You've agreed to repay the money over a long term of years. Sickness, unemployment, reduced income—any of those things may compel you to ask extensions or payment reductions on your mortgage. It's easier to get leniency when a past record of prompt payments deserves it. (d) You get your home free of debt quicker—which is perhaps the most important reason of all.

5. *Do most mortgage contracts provide for a penalty on late payments?* Definitely. FHA loans provide for a specified "late charge" figured on the amount of delinquency. Real-estate notes almost universally permit collection of interest at the maximum rate on delinquent interest.

6. *Should your note permit payments to be made "on or before" maturity?* Yes. There's hardly any justification for the holder of a monthly-payment note not permitting anticipation of maturity (advance payments). The note may not read "on or before" in so many words, but it certainly should provide for anticipation of maturity in a simple, easily understood clause *contained in the note.*

7. *Is the amount of your monthly tax and insurance payment supposed to cover your taxes and insurance every year?* No. Tax and insurance rates and tax assessments change. The monthly tax and insurance payments are always estimates, and the mortgage and note should provide for an annual adjustment of the payments, up or down as may be necessary.

TAXES:

Be "tough" on these. And be sure to ask questions. Tho in some states the home-owner living in his own home gets a partial exemption, real-estate taxes are too high almost everywhere.

1. *What taxing agencies usually collect taxes on an urban home?* First, there's the city, collecting taxes for salaries and administration, police and fire protection, garbage collection, street maintenance, health department, and many other functions, some unnecessary. Second, there're the schools. To meet more complicated public-education requirements in urban communities, independent school districts are set up to collect taxes for school maintenance in urban territory. Third, there's the county or parish or borough. Their tax funds go for county functions, such as roads, law enforcement, and schools, in the city and thruout the county. Fourth, there's the state, whose funds go for all the multitudinous functions.

2. *Are any special taxes ever collected?* Frequently. Your property may be in a special drainage district or navigation district—perhaps in a road district created to obtain bonds issued to pay for roads. Irrigation districts are created in some areas, and property therein taxed. Special assessments can be levied in some states to pay for paving or sewer-lines.

3. *How can you find out to which taxes your proposed property is subject?* By finding out where it's located with respect to the city limits, and asking the tax-collectors. They're public servants and supposed to tell you.

4. *What is a tax assessment?* A value placed on your property by each tax-collector for taxation purposes.

5. *Is the tax assessment supposed to be the same as the actual value of your property?* Not usually. Most state laws permit tax-assessors to assess property "for the full true market value," which would permit them to assess your property for 100 percent of its actual cash value. Usually the assessment represents a fraction of a true market value determined by the assessor. The fractions vary—some assess on a 40 percent basis, others on a 50, 60, 70, or 80 percent basis.

6. *Do all assessors in the same city use the same base value?* Rarely. In Houston, Texas, for example, the city tax office assesses on a 50 percent basis, while the county tax-assessor uses 40 percent. In an adjoining small town the land is assessed at 100 percent and the house at 50 percent.

7. *Can you get your taxes reduced from year to year?* That depends on the real-estate market, building costs, and property values in your neighborhood. By keeping your assessments in step with changes in conditions and depreciation on your building, you can do much to keep your tax load from increasing.

INSURANCE:

1. *What kind of insurance will your mortgage require you to carry?* Usually against loss by fire, hail, windstorm, and explosion.

2. *What amounts must you carry?* Enough to cover the amount of your indebtedness—with some exceptions.

3. *In case of a complete loss on your house, does the lender get all of the money from the insurance company?* No. The lender is protected only on the amount you owe. The rest is yours.

MONTHLY MORTGAGE COSTS:

Explanation: This tabulation shows the maximum FHA-insured mortgages which may be secured by houses and lots of various appraised values and the monthly cost of these mortgages.

To be eligible for FHA insurance, home mortgages must be written in multiples of $100, must bear interest at 4½ percent or less, must be amortized in monthly installments. Cost of such insurance is ½ of 1 percent. Monthly payments shown include interest, repayment of principal, and average insurance premium, and are calculated to retire the entire mortgage by its maturity date.

Amount of these monthly payments is dependent upon the original principal, amount of the mortgage, and the term or duration of the mortgage. Both of these, in turn, are dependent upon the value of the property which secures the mortgage. Thus, houses and lots appraised by FHA at $6,000 or less are eligible for FHA-insured mortgages whose principal amount may be as large as 90 percent of appraised value and whose term may be as long as 25 years. Upper section of the tabulation at right shows the largest mortgages which may secure houses and lots appraised at $3,000 to $6,000 and monthly payments required to retire them.

Houses and lots appraised at more than $6,000 but not more than $10,000 are eligible for FHA-insured mortgages whose principal amounts may be as large as 90 percent of the first $6,000 of value, plus 80 percent of the balance of value. Maximum term of these mortgages is twenty years. See center section of tabulation at right.

Houses and lots appraised at more than $10,000 but not more than $20,000 are eligible for FHA-insured mortgages whose principal amounts may be as large as 80 percent of value, whose terms may be as long as twenty years. Lower section of tabulation shows such maximum mortgages and monthly payments.

Monthly payments required for mortgages other than those listed may be determined by multiplying the monthly payment rate per $1,000 (first line of tabulation) by the amount of the mortgage. Thus, payments required for a $7,500, 20-year mortgage would be halfway between those for a $7,400 and a $7,600 mortgage, or would be equal to 7.5 times $6.57—$49.28.

While more than 90 percent of all mortgages which FHA insures are for terms shown in the tabulation, FHA will also insure mortgages with terms of five, eight, twelve, and twenty-four years. (Monthly payment rates per $1,000 for such mortgages are $18.86, $12.64, $9.23, and $5.93, respectively.) With but few exceptions, mortgages with terms other than the ten already mentioned will not be insured by FHA.

TABLE OF COSTS AND MONTHLY PAYMENTS

House & Lot	Maximum Mortgage	Amortization Period in Years					
		10	15	17	19	20	25
......	$1,000	$10.59	$ 7.88	$ 7.26	$ 6.77	$ 6.57	$ 5.81
$3,000	2,700	28.59	21.28	19.60	18.28	17.74	15.69
3,500	3,100	32.83	24.43	22.51	20.99	20.37	18.01
4,000	3,600	38.12	28.37	26.14	24.37	23.65	20.92
4,200	3,700	39.18	29.16	26.86	25.05	24.31	21.50
4,400	3,900	41.30	30.73	28.31	26.40	25.62	22.66
4,600	4,100	43.42	32.31	29.77	27.76	26.94	23.82
4,800	4,300	45.54	33.88	31.22	29.11	28.25	24.98
5,000	4,500	47.66	35.46	32.67	30.47	29.57	26.15
5,200	4,600	48.71	36.25	33.40	31.14	30.22	26.73
5,400	4,800	50.83	37.82	34.85	32.50	31.54	27.89
5,600	5,000	52.95	39.40	36.30	33.85	32.85	29.05
5,800	5,200	55.07	40.98	37.75	35.20	34.16	30.21
6,000	5,400	57.19	42.55	39.20	36.56	35.48	31.37
$6,200	$5,500	$58.25	$43.34	$39.93	$37.24	$36.14	Only mortgages for $5,400 or less are eligible for terms of more than 20 years.
6,400	5,700	60.36	44.92	41.38	38.59	37.45	
6,600	5,800	61.42	45.70	42.11	39.27	38.11	
6,800	6,000	63.54	47.28	43.56	40.62	39.42	
7,000	6,200	65.66	48.86	45.01	41.97	40.73	
7,200	6,300	66.72	49.64	45.74	42.65	41.39	
7,400	6,500	68.84	51.22	47.19	44.01	42.71	
7,600	6,600	69.89	52.01	47.92	44.68	43.36	
7,800	6,800	72.01	53.58	49.37	46.04	44.68	
8,000	7,000	74.13	55.16	50.82	47.39	45.99	
8,200	7,100	75.19	55.95	51.55	48.07	46.65	
8,400	7,300	77.31	57.52	53.00	49.42	47.96	
8,600	7,400	78.37	58.31	53.72	50.10	48.62	
8,800	7,600	80.48	59.89	55.18	51.45	49.93	
9,000	7,800	82.60	61.46	56.63	52.81	51.25	
9,200	7,900	83.66	62.25	57.35	53.48	51.90	
9,400	8,100	85.78	63.83	58.81	54.84	53.22	
9,600	8,200	86.84	64.62	59.53	55.51	53.87	
9,800	8,400	88.96	66.19	60.98	56.87	55.19	
10,000	8,600	91.07	67.77	62.44	58.22	56.50	
$11,000	$ 8,800	$ 93.19	$ 69.34	$ 63.89	$ 59.58	$ 57.82	
12,000	9,600	101.66	75.65	69.70	64.99	63.07	
13,000	10,400	110.14	81.95	75.50	70.41	68.33	
14,000	11,200	118.61	88.36	81.31	75.82	73.58	
15,000	12,000	127.08	94.56	87.12	81.24	78.84	
16,000	12,800	135.55	100.86	92.93	86.66	84.10	
17,000	13,600	144.02	107.17	98.74	92.08	89.35	
18,000	14,400	152.50	113.47	104.54	97.49	94.61	
19,000	15,200	160.97	119.78	110.35	102.90	99.86	
20,000	16,000	169.44	126.08	116.16	108.32	105.12	

OTHER MONTHLY COSTS:

Explanation: The tabulation at right shows average monthly costs, other than mortgage costs, which must be included in the total cost of home-ownership. Taxes are based upon 1938 adjusted rates in 274 cities classified as to population groups; average of the low rates in these groups is $14 per $1,000 per year, average of the high rates is $49, average of the average rates is $28. Maintenance and depreciation are based upon 1 and 2 percent of house valuation per year. Fire insurance is based upon a national average rate of $2.50 per $1,000 of house valuation per year—it may range from a low of $1.20 to a high of $20 per $1,000. House valuation used in computing maintenance, depreciation, and fire-insurance cost is assumed to be $2,500 for the $3,500 house and lot; for the others, $800 is added to house valuation for each $1,000 added to valuation of house and lot. While all figures in this tabulation are based upon reasonable estimates and accepted rules-of-thumb, they are only approximate averages and will vary greatly according to local conditions.

House & Lot	Taxes			Maintenance & Depreciation		Fire Insurance
	Average Low	Average	Average High	1%	2%	
$ 3,000	$ 3.51	$ 6.99	$ 12.24	$ 2.08	$ 4.17	$ 0.53
3,500	4.10	8.16	14.28	2.42	4.83	.61
4,000	4.68	9.32	16.32	2.75	5.50	.69
4,500	5.27	10.49	18.36	3.08	6.17	.78
5,000	5.85	11.65	20.40	3.42	6.83	.86
5,500	6.44	12.82	22.44	3.75	7.50	.95
6,000	7.02	13.98	24.48	4.08	8.17	1.03
6,500	7.61	15.15	26.52	4.42	8.83	1.11
7,000	8.19	16.31	28.56	4.75	9.50	1.20
7,500	8.78	17.48	30.60	5.08	10.17	1.28
8,000	9.36	18.64	32.64	5.42	10.83	1.37
8,500	9.95	19.81	34.68	5.75	11.50	1.45
9,000	10.53	20.97	36.72	6.08	12.17	1.53
9,500	11.12	22.14	38.76	6.42	12.83	1.62
10,000	11.70	23.30	40.80	6.75	13.50	1.70
11,000	12.87	25.63	44.88	7.42	14.83	1.87
12,000	14.04	27.96	48.96	8.08	16.17	2.04
13,000	15.21	30.29	53.04	8.75	17.50	2.21
14,000	16.38	32.62	57.12	9.42	18.83	2.37
15,000	17.55	34.95	61.20	10.08	20.17	2.54
16,000	18.72	37.28	65.28	10.75	21.50	2.71
17,000	19.89	39.61	69.36	11.42	22.83	2.88
18,000	21.06	41.94	73.44	12.08	24.17	3.05
19,000	22.23	44.27	77.52	12.75	25.50	3.21
20,000	23.40	46.60	81.60	13.42	26.83	3.38

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Lot:

Your lawyer can help you on these—ask him questions, too.

1. *How big is it?* You'd be surprised how many of you don't know.
2. *Is it big enough?* This isn't nearly as silly as it sounds. Outdoor living-rooms, barbecue pits, play-areas, and gardens take a surprising amount of space.
3. *How does the lot grade on natural beauty?* Picturesque little ravines, rolling slopes, and plenty of trees can be a nuisance—but not if you plan to take full advantage of their beauty from the outset.
4. *Is it well drained?* Answer this one by driving out to see it after a heavy rain. You can find out quicker by checking drainage grades with the city engineer.
5. *Is the soil natural or filled in?* What some developers dig up to fill in low lots will surprise you. Sometimes, too, the stuff won't co-operate with your efforts to grow things. And it has a habit of settling and being restless for 15 to 20 years.
6. *Is there an alley in the rear of the lot?* It can be very useful for deliveries and garbage collection.
7. *Are all of the utilities—water, lights, sewerage, gas, and telephone—immediately available?* Be sure they're actually in and know whether they enter from front or rear of the lot.
8. *Where, exactly, are the boundary lines of your lot?* Knowing where they are can save you trouble later.
9. *Where are the building lines?* It can be extremely aggravating to find you can't build your house where you'd planned, without violating a building restriction, or to find, after buying a house, that you can't build an addition or a detached garage, for example, where you planned.
10. *What are the building restrictions?* Also, what are the restrictions on the adjoining property? You don't want a hot-dog stand or a shack next to you. (See next page.)
11. *How is your lot oriented?* The relation of your ground to the prevailing breezes will influence the room arrangement of your house. (See also pages 168 and 169.)
12. *What taxes will you have to pay?* Probably you'll have to pay city, school, state, and county, and maybe some special ones, such as paving, drainage district, or navigation district—and maybe some more not heard of yet.

If You're Buying:

The problem of buying a house already built is a separate affair from building one and is to be approached from a different angle. A barrage to fire at it might read:

1. *Are houses in new real-estate developments a safe purchase?* The answer is that the business of building homes for sale in groups and singly has in recent years become a highly skilled and reputable enterprise. Sound construction, good design, and fair dealings are found in well-established building organizations.
2. *Who built the house?* Investigate the responsibility, experience, and integrity of the builder closely. It's always possible to check up on his reputation by visiting with people for whom he has built houses.
3. *How old is the house?* Rarely does a house show its structural defects in less than six months.
4. *Are there any cracks in the brickwork?* They can mean: settled piers or footings; improperly seasoned framing lumber; no ties to hold bricks to the framework (on veneered houses); poor mortar or improperly prepared bricks; a shifting of the subsoil.
5. *On a frame house, are all the siding and cornice joints closed?* Opened joints can mean the same things as cracked brickwork on a masonry house.
6. *Does the roof show any signs of sagging?* Sight along the ridge and eaves. If they don't look just right—ask questions and satisfy yourself.
7. *Are the screens properly hung and fastened?* Wire should be bronze or copper; frames full length and hung at top on rustproof hangers.
8. *Does the finish hardware (door knobs and locks) work properly and seem correctly fitted?* Check for rust spots on it and for loose and shaky hardware.
9. *Do all the doors and windows work smoothly, no rattling or binding?* Sagging doors and stuck windows can point to faulty framing and a yielding foundation. They mean, at the least, careless fitting.
10. *How many clothes closets are there?* And how big? And do they have enough drawers and shelves and clothes poles?
11. *Does the fireplace work properly?* Build a fire in it—after getting permission—to see if it does.
12. *Will the heating system actually work?* Try it out. Also get a heating engineer to check its capacity and installation. Utility companies often furnish their engineers free.
13. *What is the condition of the plumbing system?* You can't keep from taking chances here, but you can check for leaks and inadequate drains, and to see if the equipment works properly. Check the condition and "life expectancy" of the water heater.
14. *Are there enough electrical outlets?* One for each six feet of wall is a good rule.
15. *Do all electric fixtures and outlets work properly?* Inspectors often have had fixtures fall off into their hands when they tried to turn them on in houses being inspected!
16. *Are the floors level?* If this sounds foolish, get a spirit level and check. You may be surprised.
17. *Do all cabinet drawers and doors work smoothly?*
18. *What storage space is available within the house?*
19. *Have the interior woodwork and walls been finished with care?* Look for smeared paint and plaster, mismatched paper, dents and scratches on the woodwork, and open or careless jointing of woodwork members.
20. *Is all rubbish—including forming boards—cleared from beneath unexcavated portions?* Lumber scraps are a banquet table for termites.
21. *Is there plenty of ventilation and some light under the house?* Termites thrive in dampness and dark.
22. *Are the floor-joists bridged?* Two rows of bridging should brace the joists at intervals not to exceed 8 feet.
23. *If the garage is attached, is there a fireproof wall between it and the house?* Lack of a firewall may increase your insurance rates.
24. *If the garage is detached, check for:* Are the doors adequately braced and hung? . . . Are the sills up out of the ground and treated against rot? . . . Is the floor concrete? . . . Will it actually accommodate the number of cars it's designed for? . . . Are the walls and roof solidly built? . . . Is it wired for electricity?
25. *How adequate is the landscaping?* Remember that well-selected shrubbery and other plantings are necessary to an attractive home, and if they aren't on the place when you buy, a suitable allowance to cover their cost should be made in your budget.

The roseate haze surrounding the purchase of a home—whether you're buying one already built or building one—is often dispelled rudely by the task of getting the loan and by the practical and monotonous task of meeting mortgage payments, taxes, insurance premiums, and tax assessments. We won't attempt to include them in the haze, but asking questions about them will help to brace you for the shock. You'll find they're not as bad as rent receipts, tho—we guarantee that. See pages 10, 11, and 130.

Ten Rules:

Here are ten golden rules for the home-builder to follow; just a reminder-summary before you go on to other sections of the book.

1. Start some simple budget so that when spring comes you will have a rather definite idea (if you haven't already) of how your average expenses run.
2. Buy or build a house that always is just a little less than you can afford rather than just a little more.
3. Never spend more for building than three times your annual income. You'll be wiser if you spend only two times!
4. Buy or build the sort of house you can add to later on if you wish.
5. Take time to get acquainted with the neighborhood in which you are planning to buy or to build.
6. Remember that home costs are not just mortgage costs and taxes. Begin now to check up on carrying costs so that you can meet these out of your income.
7. Plan to pay as much as you can in the beginning so you won't have to pay so much for so long!
8. Plan to pay off the balance as rapidly as you possibly can.
9. See if your husband can carry enough life insurance to permit you to pay off the mortgage in case he, as head of the home, should die.
10. Shop around and become acquainted with what the market offers. Garner in grains of wisdom when the wintry breezes blow. You'll find the adventure full of interest.

Planning to Build:

The preceding questions and those about finance apply, of course, either to a house that's built for sale or to the purchasing of a vacant site on which to build, as well as to building. The following apply only to building a home.

1. Is your house planned to fit your particular living habits? Analyze the habits of your family. Discuss them among yourselves, and make your house to fit those habits. Do you need an extra living-room? How about your bookshelves and study spaces? Is a separate room desirable? Do you really *need* a dining-room? Would a breakfast-bar serve most of the time? Will an extra bathroom or lavatory be a luxury or is it really a necessity for efficient and pleasant family life?

2. Do you need an architect? Your architect, trained to bring an impartial and skilled knowledge to a solution of the design, arrangement, and construction of your home, often saves much more than the cost of his fee in eliminating "extras" in construction costs.

3. Can an architect save you money in other ways? Yes, in plenty of ways—competitive bidding for the building contract, supervision of construction, and higher re-sale value thru better design, arrangement, and construction, to mention a few ways.

4. How much is the architect's usual fee? The standard fee is from 6 to 8 percent of the contract price. On a 6 percent basis, the distribution is usually 4 percent for preparing plans and specifications and taking bids, and 2 percent for supervising construction. The architect is your trained representative in your relationships with the builder during the actual construction.

5. What are usual steps toward actually letting a home-building contract? They are: (a) Preliminary plans and drawings worked out with architect. (b) Checking of preliminary plans, and discussion of control-specifications. (c) Preparation of final plans, complete specifications, and working drawings and details. (d) Letting out plans to group of builders for competitive biddings. (e) Selection of builder and awarding of contract to him, subject to completion of financing. (f) Determination of amount of financing needed and survey of financing plans available. (g) Application to lending institution for loan needed.

Zoning:

Good companions for your home are as desirable as good associates for your children. A house is known by the company it keeps.

WOULD you build a house next door to a garbage reduction plant? Or buy a house that had a boiler factory on one side and a coal unloading station on the other?

Of course you wouldn't. But what's to prevent someone, after you've built or bought, from establishing a slaughter-house to the south of you, or a beer-and-brothel joint immediately north? And maybe, in addition, a noisy large-family apartment building right across the street?

This is an extreme example, but it *could* happen, and *has* happened in some cities where there's no barrier between business and residential areas—nothing to keep undesirable neighbors or industries from creeping into a high-class residential neighborhood, bringing with them not only noise and dirt and a threat to home values, but also likely a menace to the health of the family.

THE insurance against such a situation, of course, is *zoning*.

There ought to be a better word, because zoning really embraces, or *should* embrace, more than physical segregation of a city's districts. Zoning is *home* protection as well as property classification.

Zoning is the legal policeman that protects the home-owner's or builder's investment in his neighborhood.

Zoning is a *legal* "*No Man*." It says "no" to an apartment house in a neighborhood zoned for single-family dwellings.

Zoning (unofficially) often says "no," in some cities, to the mixing of colors and races in residential neighborhoods.

Zoning says "no" to the intrusion of glue factories, slaughter-houses, poultry houses, junk yards, and such into your neighborhood.

Zoning *may* say "no" also to "Smokey Joe" Zilch, who has ten dirty-faced, stair-step children, two rattling old trucks and a tin Lizzie, and who buys up the lot next to yours at a tax or sacrifice sale and wants to throw up a three-room board shack and an outhouse—and probably combine home, trucking business, and old-car lot into one headquarters. Unfortunately, some cities' zoning ordinances don't have a clear-cut "no" in instances of this kind.

THERE is one type of multi-family dwelling unit that your home-area zoning ordinance should be elastic enough to OK without giving approval to others. This is the *garden apartment*, fairly new in this country, but increasing in popularity. It's usually but one or two stories high, and provides accommodations for a small number of discriminating families. It's usually quite esthetic structurally, nicely gardened, and commonly enhances rather than forces down values in a neighborhood. You might welcome one to your subdivision.

ZONING ordinances have a way of quietly dozing in city law books. Not only do ordinances go to sleep, but likewise their enforcement. Too, mushroom growth may make citizens careless of zoning ordinances. Maybe your city is booming industrially, its limits being extended. Perhaps new buildings are springing up everywhere. Many persons are prosperous. The result is nonchalance and unconcern about the future of home property—for it's usually the influential citizens, in a case of this kind, who are most benefited by the prosperous industry, and care more about the industrial expansion than the welfare of those less prosperous citizens whose main concern is in their hard-gotten residential property and the protection of it. Result is that industry often encroaches completely upon many good residential neighborhoods. And then comes a day of reckoning when the boom is over. All values decline, and decadent areas—half industrial, half residential—are left.

However, on the whole, in this country extensive mushroom growth is practically a thing of the past, and a few cities now realize keenly the necessity of careful attention to rigid zoning. Industry will grow and expand, but seldom will it be more important to the individual property owner than his investment in his home or the "tie that binds." For one thing, there's a *sentimental investment* in his home that no interest in "seeing your city boom" can ever match.

YET put your washing machine in your living-room, put your piano in the kitchen, don't wash dishes for a week, and you have some idea of the disorder that reigns in many cities today. Funeral parlors adjoin estates of the town's best families, filling stations floodlight the neighborhood of Substantial Citizens, and worse—that architectural Frankenstein develops wherein a house becomes a store thru a structural face-lifting!

WHAT zoning tries to do is to set up little "compartments" for a city—neighborhoods for 1- and 2-family residences, for apartments. Zoning, to some, means restriction. To the home-owner, zoning means protection.

Most of all, zoning stabilizes land values. If you stick your feet up on the desk of a Federal Housing Administration officer, sooner or later the conversation will turn to the subject of house depreciation. "First," he'll tell you, "houses don't fall to pieces nearly as fast as their neighborhoods. We tell our valuators who inspect mortgage applications for new or existing homes the following:

" 'One of the best means of providing protection from adverse influences is thru well-drawn zoning ordinances.

" 'If the provisions of an ordinance have been worked out from a thoro knowledge of existing and probable future conditions and if the ordinance receives the backing of public approval, an excellent basis for protection exists.

" 'Even when an ordinance is ably executed, investigation must be made to determine whether infractions are permitted. If the law may be changed readily, or if the provisions themselves are not strictly enforced, such conditions can't afford much protection.' "

FHA's interests and yours are alike. You don't want your home to depreciate. They don't want the properties on which they insure the mortgage to depreciate.

A ZONING ordinance goes to work when the application for a building permit is secured. The city then checks the distance of the house from the street and from adjoining lots, size of rear and front yards, the height of the building, the percentage of land occupied by the building.

A safety valve is provided in most cities with a Board of Appeal—if the city feels a property will violate its zoning ordinance, the builder may appeal his case to the Board.

CITIZENS in some localities have taken the bull by the horns *themselves* to see that rigid zoning is enforced, often going further than the average zoning ordinance.

Here the home-owners not only have unusual zoning protection; they themselves make the rules and enforce them!

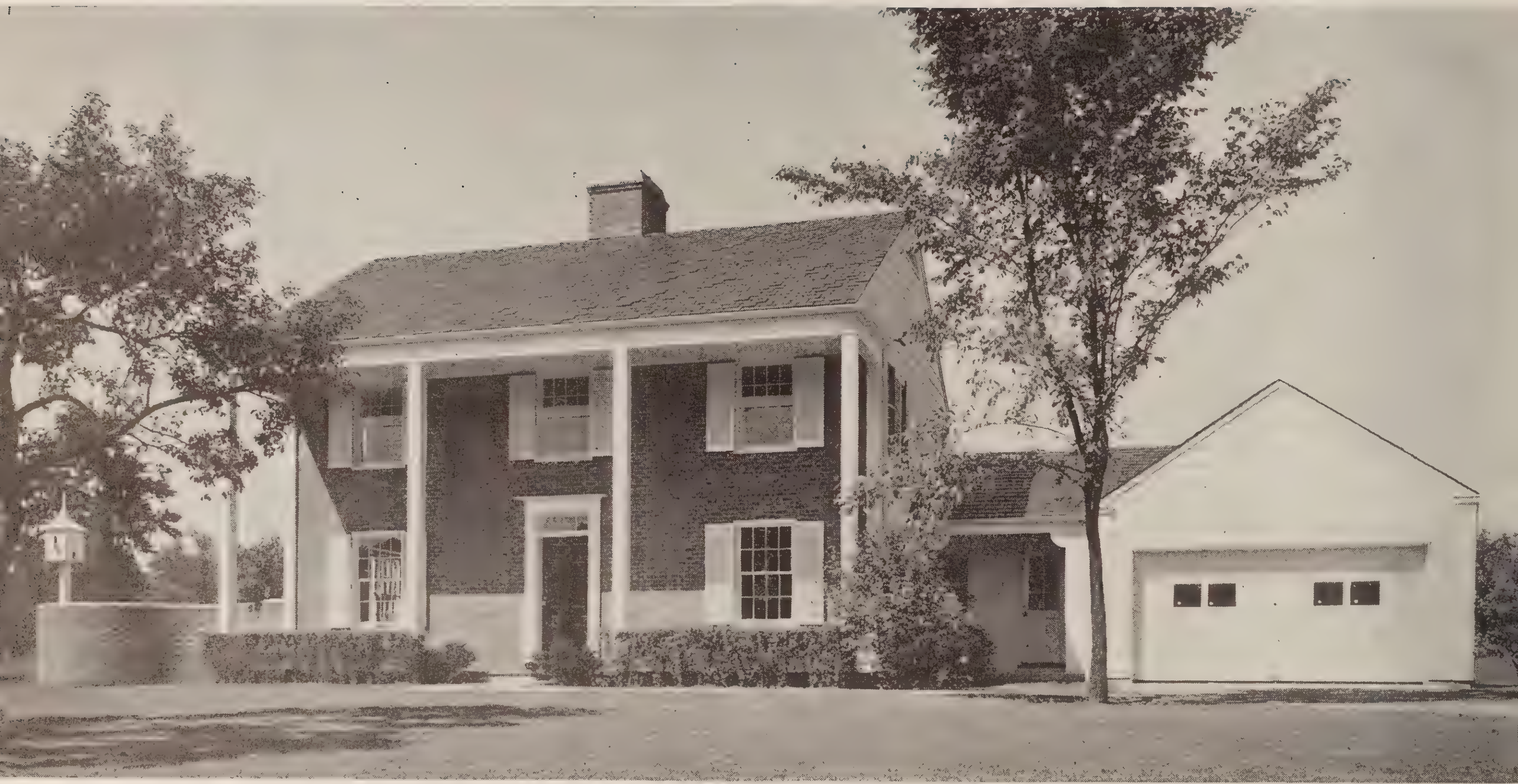
Equipped with a plan which has teeth in it, these lucky home-owners can mean business when they set out to protect their property values. That's zoning at its best.

However, this kind of owner-control zoning perhaps isn't possible except in small suburbs and new subdivisions.

So the next time your newspaper mentions what your city is doing in the way of zoning, if you're planning to build soon you'll be well paid to read closely and well. Zoning ordinances can go to sleep, they can bend for the selfish, they can grow vigorously. Like a city's tax record, its zoning ordinances and enforcement reflect the character of its citizens.

GARDENED HOMES

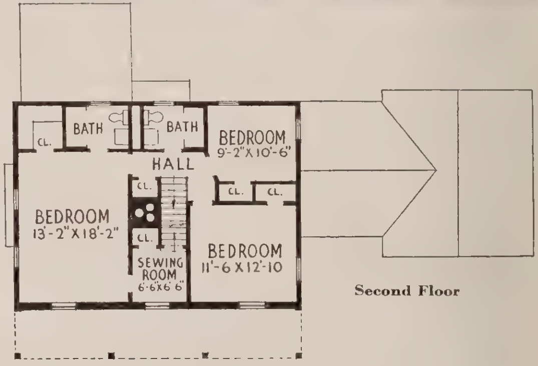
This page opens a section picturing 76 gardened homes



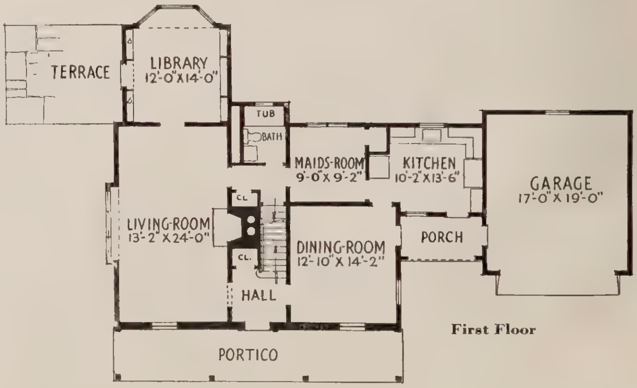
Piaget

With a Two-Storied Portico

THIS HOME in Harrison, New York, was designed for Mr. and Mrs. R. Y. Place, by Verna Cook Salomonsky of New York City, and built by "Spencer Glen" builders. The compact plan is extended by connecting the two-car garage to the house with the wing housing the kitchen, and by the curved wall on the other side. The square-columned portico set off against soft salmon-red brick gives a dignified and yet inviting appearance. Other sides of the house and garage are covered with wide white asbestos shingles and the roof is of black Bangor slate. From the square foyer-hallway thru the wood-trimmed archway one enters the living-room lightened and widened by a shallow bay opposite the fireplace. This room opens directly into a wood- and book-lined library with a coved ceiling and a deep bay window. Outside the library is a flagstone terrace covered in summer by an awning. The dining-room has good wall spaces with a low chair rail, painted wall below and paper above. The working space of the kitchen is compactly arranged, with the refrigerator recessed. The house is heated by an air-conditioning, gas-fired system. There is an inclosed pipe space near the first-floor bath extending up between the bathrooms above, making for economy of installation and repair. A smooth, non-cracking, white surface of two thicknesses of sheetrock in a patented process is interior wall finish for paint or paper, except in library and bathrooms. Bat insulation 2 inches thick in outside walls and 4 inches thick over the second-story ceiling, and brass weather stripping at all exterior openings protect the home from the elements for all-year comfort.



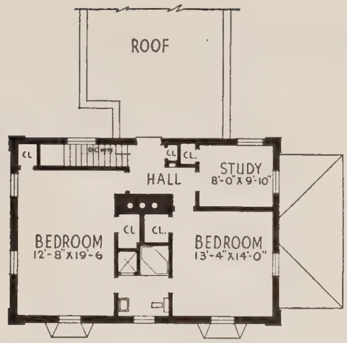
Second Floor



First Floor

Of Glass and Brick

THIS HOUSE IS an excellent example of contemporary traditional architecture designed for Mr. A. Carl Weber of University City, Missouri, by Architect Kenneth E. Wischmeyer of Saint Louis. A tall panel of glass block on the north side of the house, adjoining the garage, lights the lower and upper halls and stairway, and is an attractive feature of the hall as viewed in the vista from the living-room. Glass block provide privacy and light also for the kitchen and the library-den on the second floor. These installations of glass block are on the north side of the home to take full advantage of their insulating properties. Other window openings featuring the home are steel casement windows fitted with an extra pane of plate glass for winter insulation, and a solid sheet of plate glass for the central pane of the windows on the front of the house, with casement windows to each side of them. These are a new note. Actual entrance of the home is at the side, while the French doors on the front add a decorative touch on the exterior and bring additional light into the living-room. Steel joists and reinforced concrete slab floors are employed for both first and second stories, and outside walls are of solid brick construction thirteen inches thick, white-painted outside. The attached double garage is comfortably and directly accessible from the house by the covered passageway provided by the porch. Rooms are finished with plaster walls and ceilings, and have wood floors. The roof is of slate. You will also find additional views of the exterior of this home, showing glass block, on page 171.



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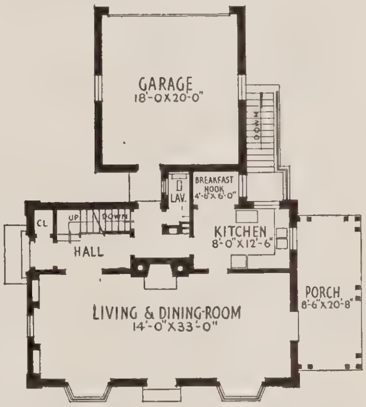
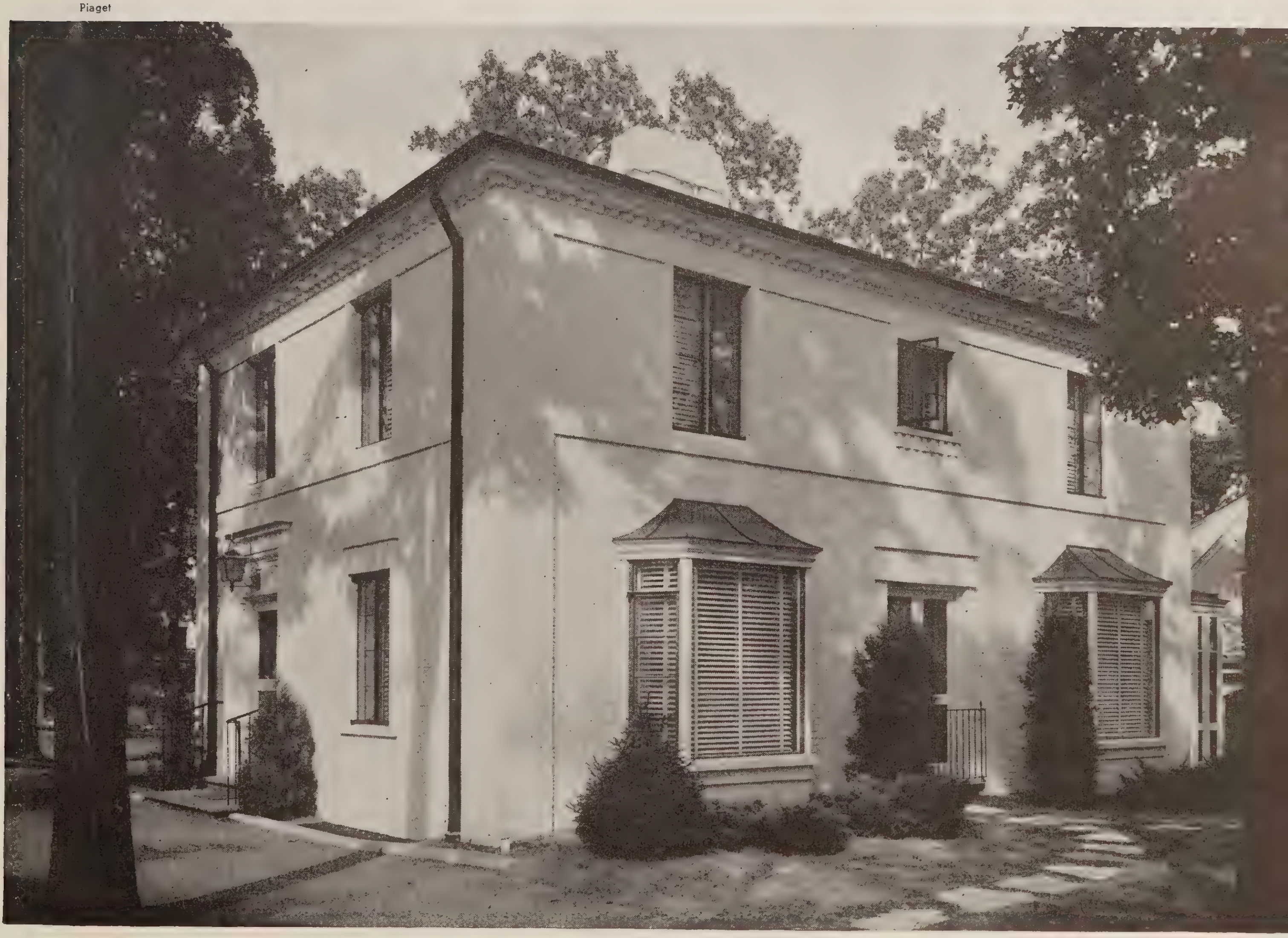
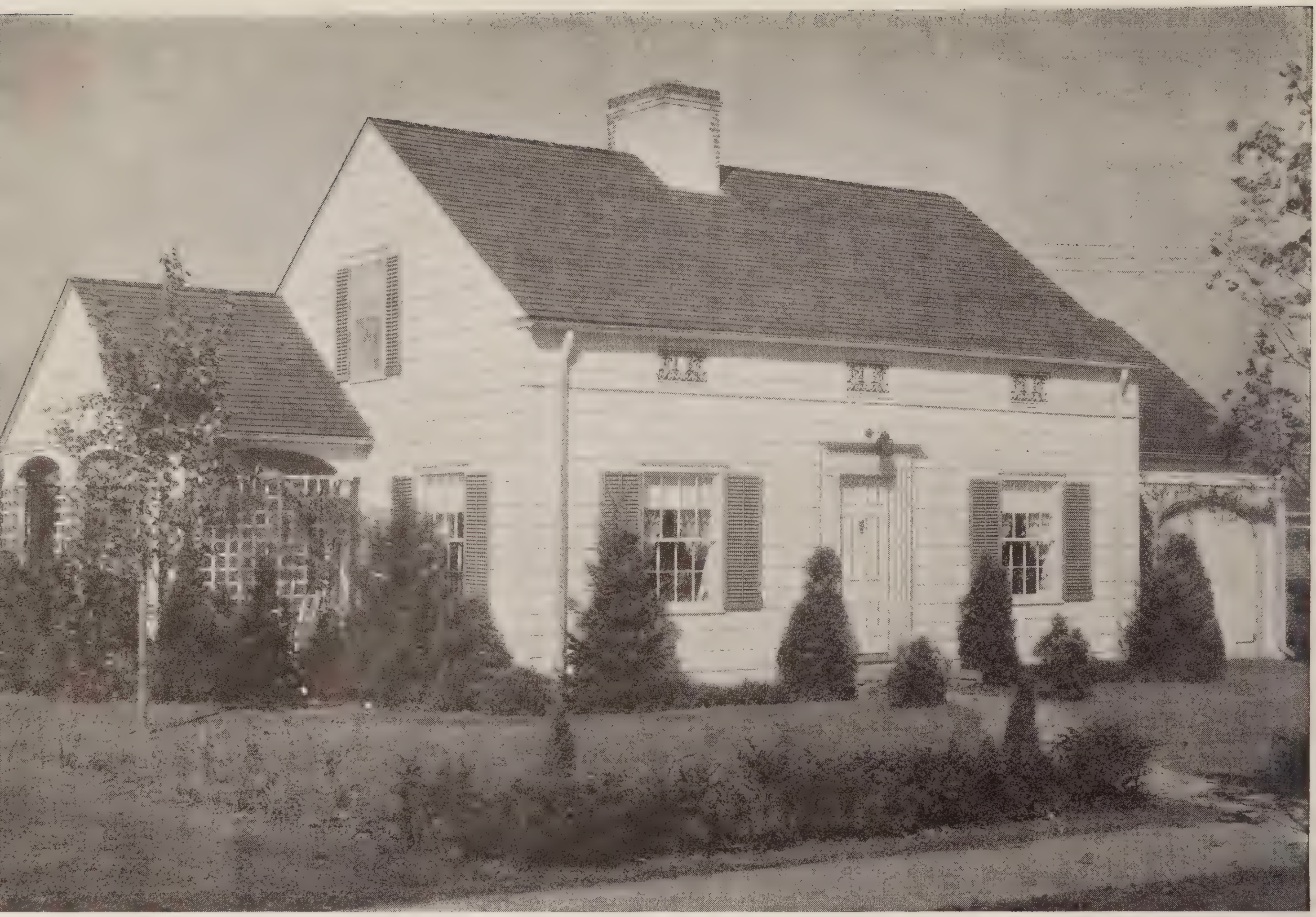


First Floor

Piaget

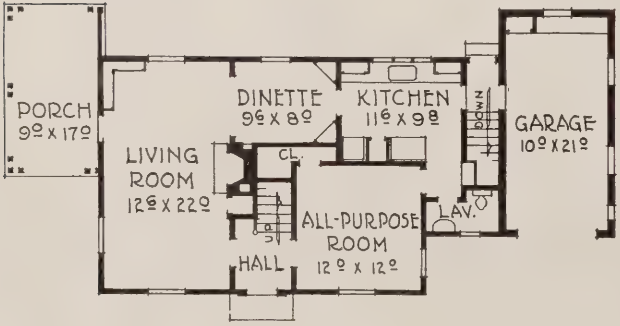




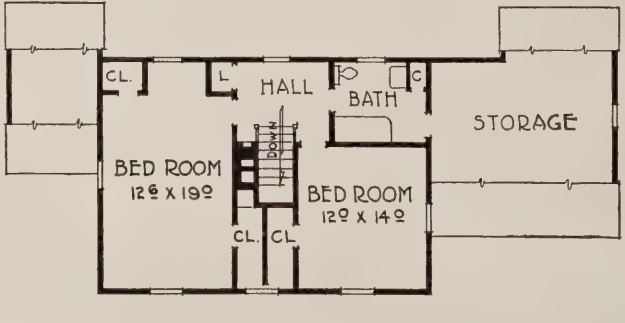
Surely a Bedroom in Reserve

ARCHITECT WILLARD B. SMITH, of Syracuse, New York, designed this home to accommodate an accumulation of true family-heirloom furnishings. Having for some time crowded their furniture into an apartment, the present owners decided that they might better have a home that would set off their furniture in the proper light. But look again at that all-purpose room to the right of the entrance hall. And see the lavatory just around the corner. Here, surely, is a bedroom in reserve. But you might prefer to have a large dining-room, and then might transform the dinette to a cozy study. Unique is the separation of the main and basement stairs. As planned, the basement stairs provide direct access to outdoors and garage, and closets and cabinets completely utilize the space under and over both stairways. The building site was wide and rather shallow, permitting the maximum width with the attached garage facing the street. This garage, long as it is, provides for cabinet and workshop space, and above is ample storage space for screens, storm sash, or other equipment. The grilled windows on the second floor provide a decorative detail and give good light and ventilation and charming appearance in the upstairs rooms. The roof is of black weathered-wood shingles, side walls are white-painted shingles, while the shutters are painted a deep green. The home was built for Mr. and Mrs. William A. Sleght by Andrew Mayer, of Syracuse.

First Floor

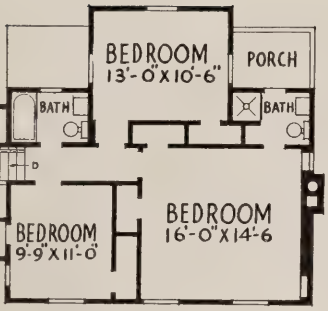


Second Floor

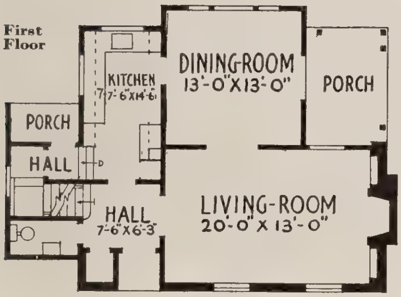


Unpretentious 6-Room Dignity

Second Floor

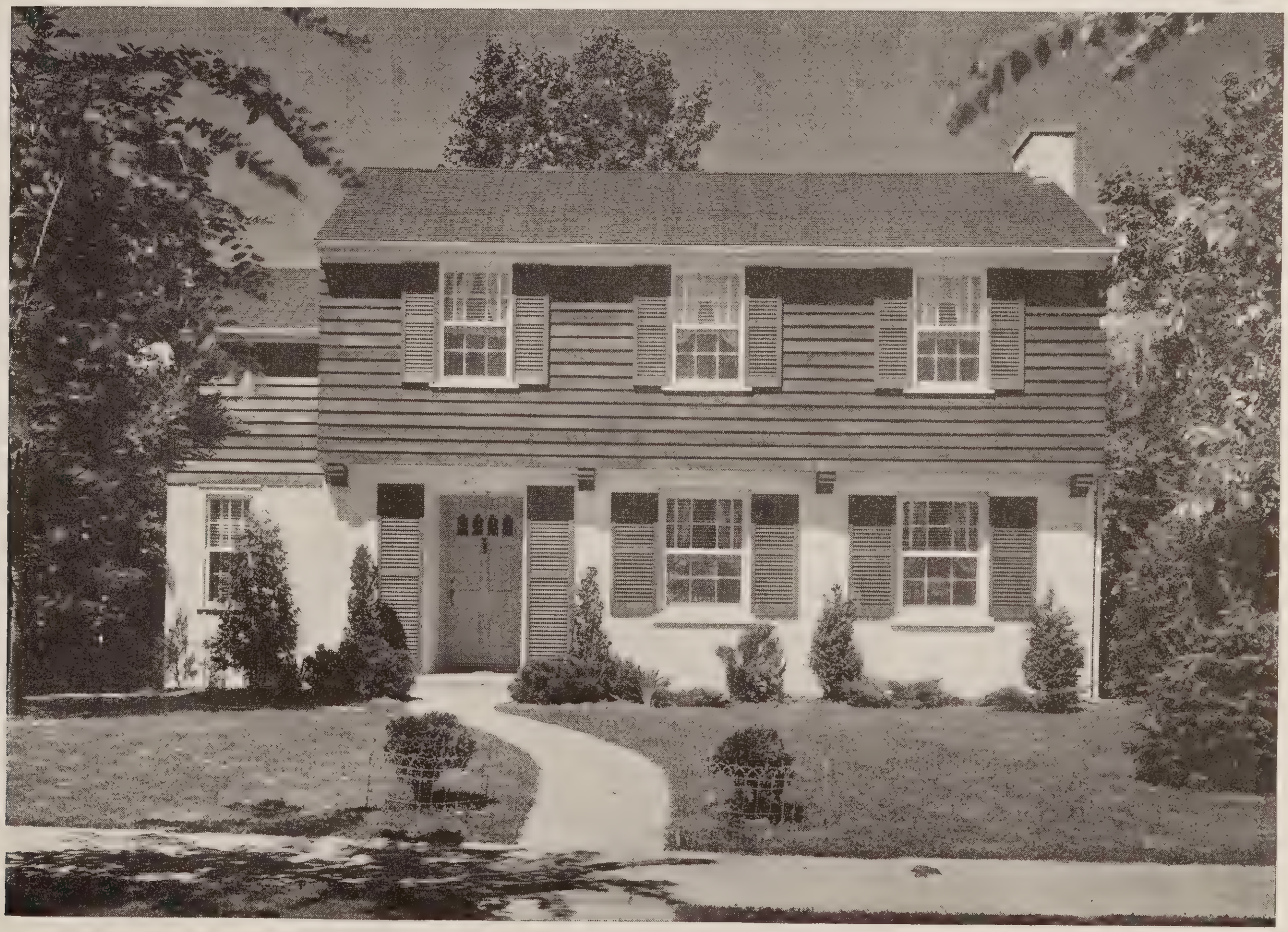


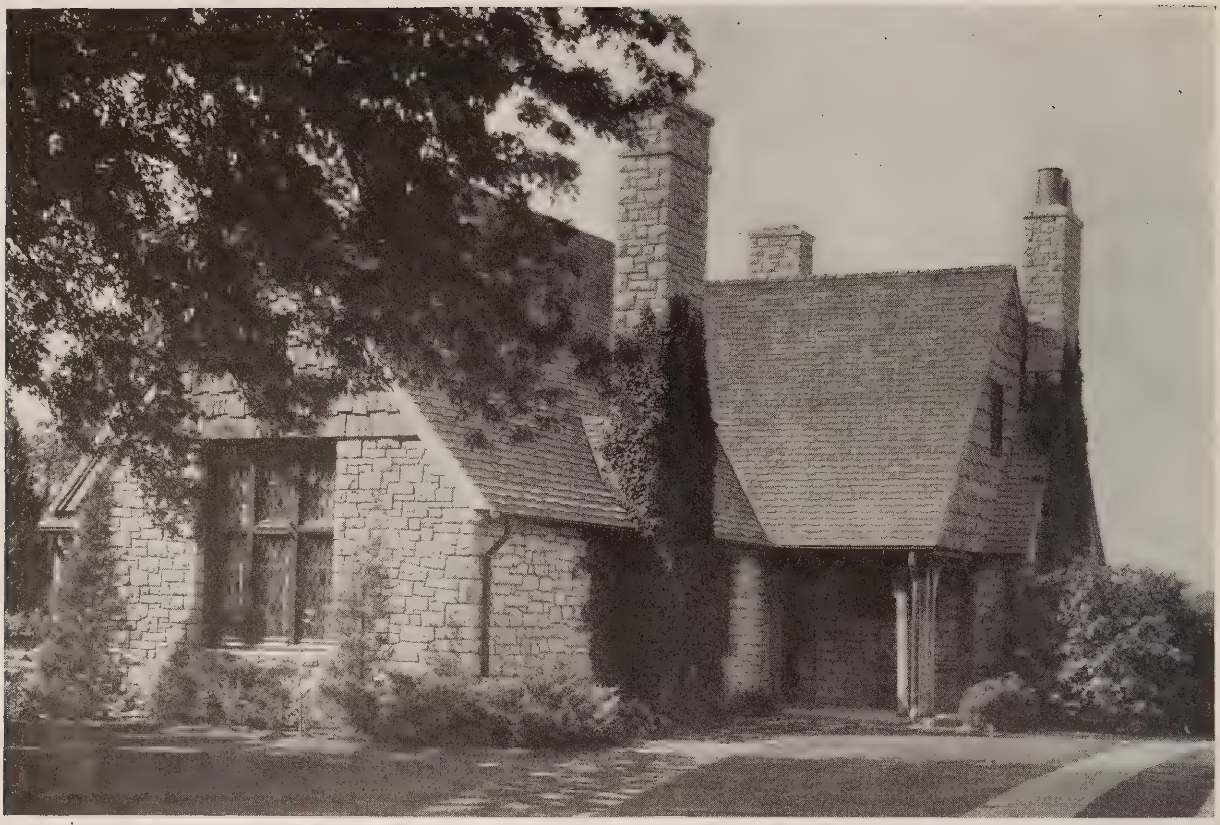
First Floor

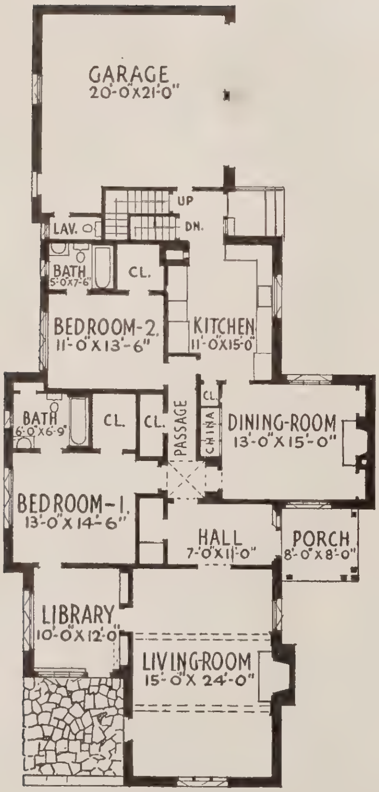


THIS HOME of the Dr. Willard W. McEwen family, of Kenilworth, Illinois, graced the cover of the March, 1939, issue of *Better Homes & Gardens*, and was designed by Architects Perkins, Wheeler, and Will. Its plan is designed to take full advantage of sun and prevailing winds. To serve in keeping the lines of the house low, the second floor is framed, and exposed structural beams thereby save nearly a foot of overall height and give an interesting and decorative first-floor ceiling treatment. The brilliant whiteness of the lower white brick walls is enhanced thru the use of a rich brown stain on the shutters and siding above, and the first-floor shutters carry this same deep brown.

The deeply recessed door offers shelter from the elements and breathes a warm welcome to callers. Thru it we pass into the entry hall that insures privacy to the living rooms. The postman drops the mail into the box at the left, which is accessible from the coat closet. In this plan, hallways are at a minimum, yet the kitchen is the only room thru which "circulation" is required to pass. The downstairs lavatory is well segregated, while the three bedrooms above are served by two bathrooms, the owner's bedroom having its private bath with a shower stall. The kitchen is the efficient broken L-shape, with generous cupboard space. Each of the bedrooms has ample closet space, and there is a coat closet just inside the front door.







Of Limestone and Split Shakes

THIS BEAUTIFUL HOME, with every appearance of solidity that will last thru the years, was designed to fit a flat, inside lot facing east, and arranged to take full advantage of the prevailing southern breeze. The exterior walls are of cream-colored limestone, tipped with gables of hand-split shakes and a wood-shingle roof. The steel sash are painted brown and the woodwork stained a warm, weathered-gray with the brown of the wood showing thru. South of the terrace, the yard is developed in two levels with a stone wall dividing them.

The entrance hall has a flagstone floor, and the other main rooms have wide, oak-plank flooring. All main rooms, too, have beamed ceilings with painted, rough-troweled walls. The living-room has a large, paneled Tudor fireplace and high-open timbered ceiling. The dining-room has walls of pine, with a built-in china cabinet. The interior doors are of different types, some being of heavy plank, some with leaded-glass panels, and some are carved with Old English designs. Heating is by vapor-steam with concealed radiators. Windows are of steel casement type with leaded glass thruout. Some of the glass quarries are of light-tinted glass in colors similar to old faded glass. The attic, tho unfinished, is well insulated.

The arrangement of rooms and halls is very well considered. Porch and front hall insulate the living- and dining-rooms. The owner's bedroom and private bath, and the library, combine to form a unit for comfortable living and entertainment, in combination with the living-room. The passageway leads past the dining-room to the kitchen and service areas, while the kitchen has direct access to the dining-room. Off this passageway is the second bedroom unit, with a private bath. In both bedrooms are clothes closets of dressing-room proportions, and in the hall and passageway are two closets convenient for coats and storage.

This home was designed by Architect William N. Caton, of Winfield, Kansas, for Mr. George W. Lemon, of Pratt, Kansas, and was built by Mr. J. H. Knight.

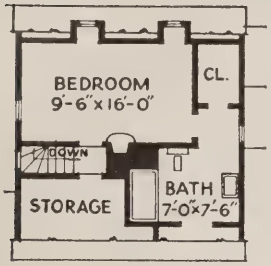
A Home in the Woods

DESIGNED by Architects Goggin & Hedlander, Greenwich, Connecticut, to be Architect Hedlander's own home, this house has an informality suited to its woodsy site. A friendly little house it is, set up on its own terrace above the rock-strewn background of its quarter-acre plot. The flagged porch looks out on a winding road in front and onto the slopes behind. It connects the house to the garage, adds much to the apparent size of the house, and protects the passage from house to garage. The batten entrance door suggests pioneer days. The solid fir gutters, green shutters, fat stucco chimney, door light, and knocker copy early craft. The garage suggests Early American salt-box design, with the small tool-house making a long, sloping roof line. Pigeon roosts and openings relieve the garage front, adding distinction.

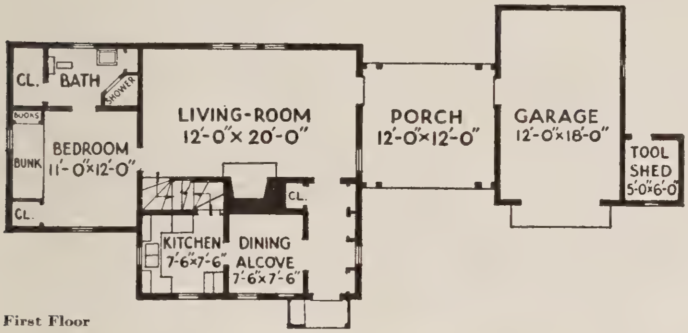
The living-room has a fireplace wall of pine, paneled and painted off-white; and its other walls have small-figured Colonial paper, a perfect background for Architect Hedlander's collection of antique furniture. As in many homes today, the dining-room has been scaled down to an alcove because in today's servantless houses formal dining has given way to buffet suppers and small groups.

Under such use a large dining-room is waste space; it's used only three or four hours out of the 24 at the most. And if the family breakfasts at some pleasant table set in a window corner or on a porch to avoid the depressing dignity of a formal room, the dining-room may be used hardly two hours in all. So the dining-room here is small, the living-room large. The doors in the alcove are purposely narrow to make the alcove look larger than it really is. To save further space, the stair creeps up behind the fireplace wall near the door leading to the small first-floor bedroom-study. This bedroom-study has wide, pine-board floor and built-in bookshelves over the head of the convertible bunk, making it an attractive all-purpose room. The kitchen, glimpsed thru the dining-alcove door, is efficiently compact—gay linoleum floor contrasts with off-white finish of cabinets, range, and work spaces.

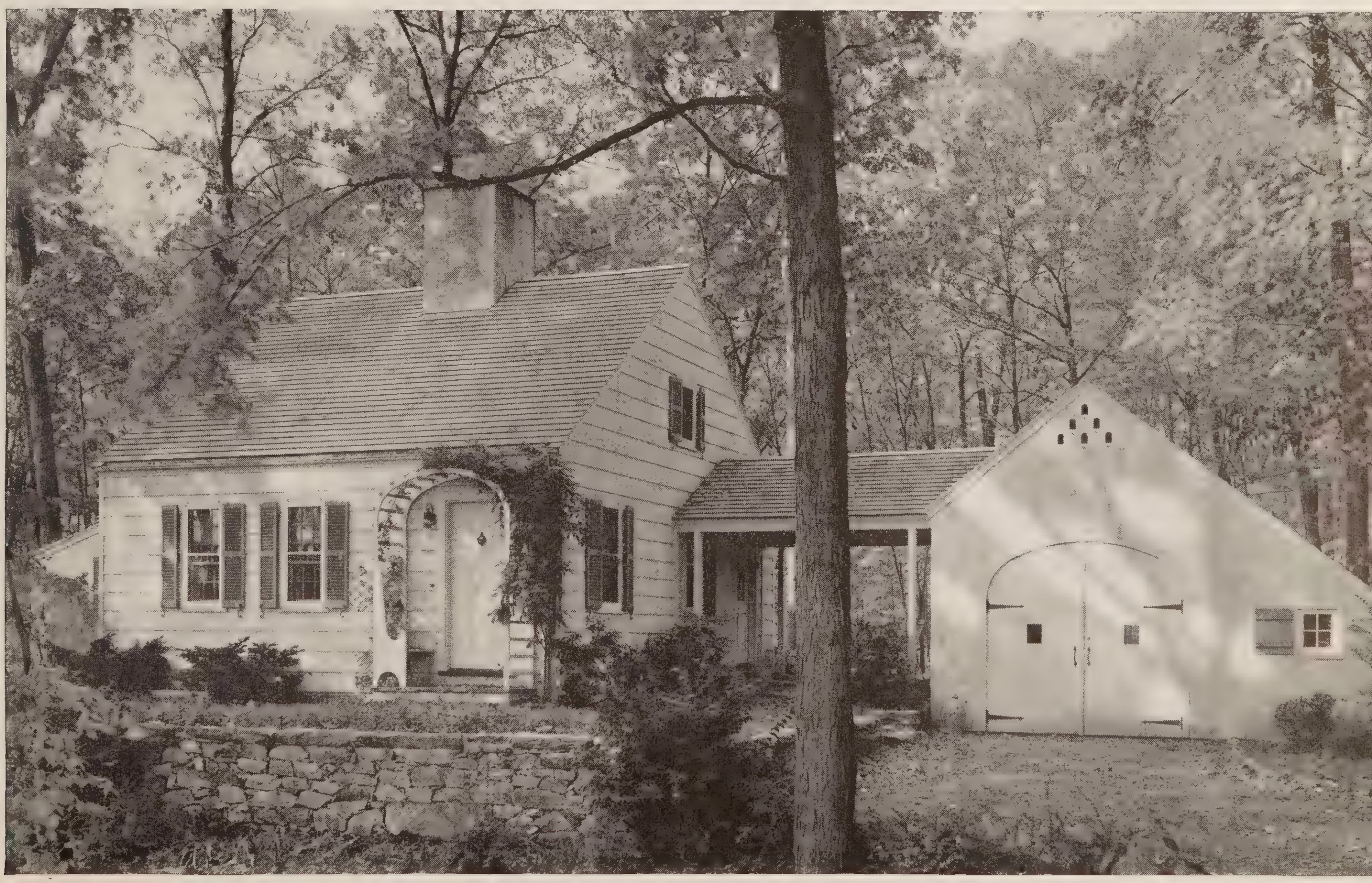
With all its charm, the house is built to standard specifications, has concrete-block foundations and frame construction. Roof and side walls are shingled, the chimney cement-plastered. Flashings are copper, the windows factory-built units, weather-stripped and spring-balanced. Insulation, wiring, heating, and hardware are of the best that the markets of today offer the home-builder.



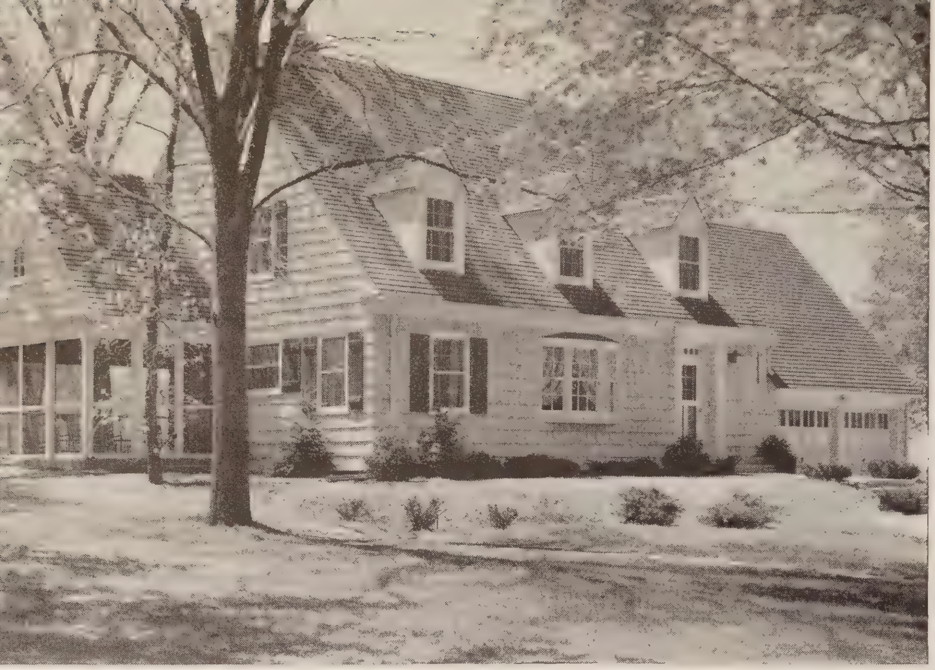
Second Floor



First Floor



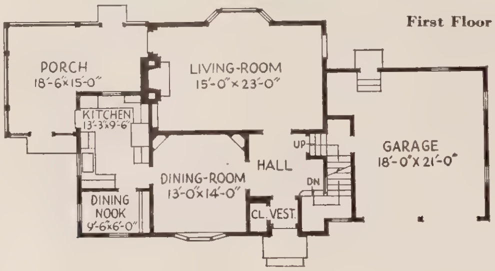
Has Porch Ideas



Kammerdiener

THIS HOME was designed by Architect Rollin C. Chapin, of Minneapolis, and built by Caron & Son, of Faribault, Minnesota, for Mr. and Mrs. Edwin J. Kiekenapp and daughter, of Faribault. The living-room and porch were designed to take full advantage of the view to the rear lawn and garden. The porch, accessible from the kitchen, provides for outdoor dining. The lower grade on the garage side brings the floor of the garage four steps below the hall, and the basement stairs continue from this level. The Colonial-type home with the low roof lines meets the owner's preferences and fits the site naturally. There's a hint of Cape Cod, tho no effort was made to maintain this style; and, all in all, the hand-split wall shingles painted white and the roof and shutters of green produce a delightfully pleasing effect. Here, beauty and convenience are the result of a carefully planned home.

First Floor



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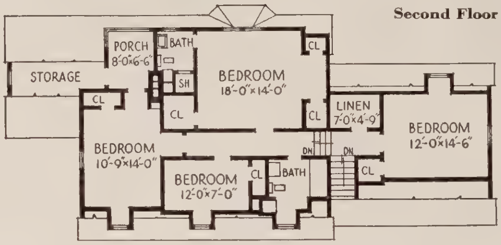
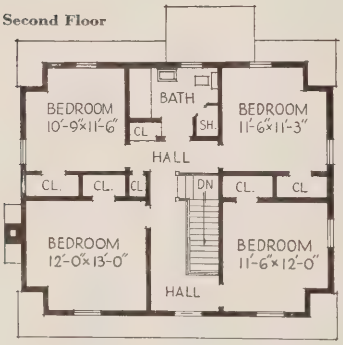
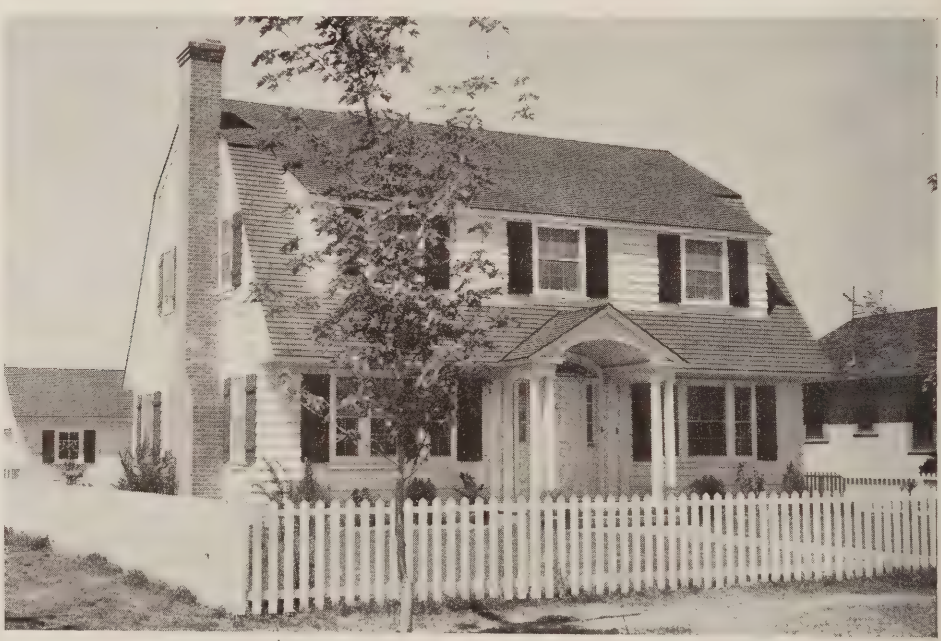


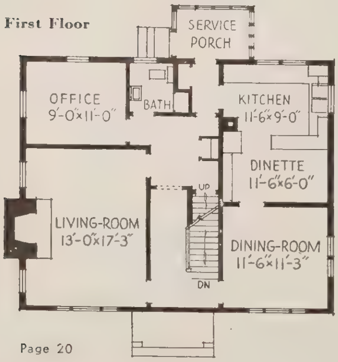
All Doors Dutch

Second Floor

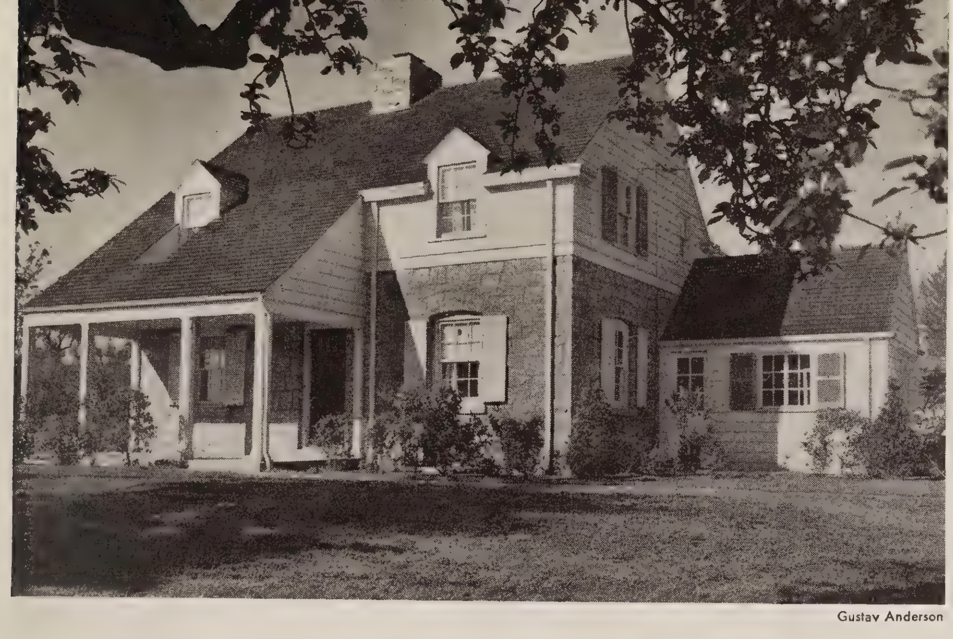




First Floor



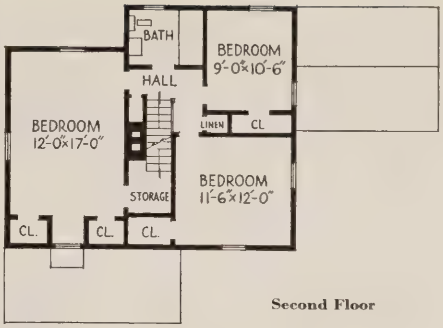
THIS IS the home of Mrs. E. B. Gravette, Red Bluff, California, designed by Draftsman George Bruyers, of Chico, built by Contractor Rudolph Rapp, of Red Bluff, for Mrs. Gravette and her two sons and three daughters. Medium-size rooms reduced costs, and the finished basement provides rooms for the housekeeper. A double door was used for the dining-room to avoid blocking the window or walls, and another, louvered with blinds from an abandoned school, was used in the kitchen entry hall. There's an authentic Dutch door from entry to back hall, and, in fact, all doors have the four raised panels of the typically Dutch Colonial door. Inside the house trim is light ivory, while the exterior is painted a gleaming white, with shutters and wood shingles painted green.



Gustav Anderson

New England in New York

AUTHENTIC and charming New England Colonial is represented at its best in this simple but very beautiful home, built with its first-story veneer and chimney of native stone, which is surmounted by wide siding. Actually a very compact and economical plan, there are convenience and privacy between the living rooms, and projecting wings of the garage and porch lend a feeling of unusual size and roominess. The stair arrangement allows for a minimum of hall space so that six rooms of ample size are included in a plan of very small compass. Floors are of oak. There's tile in the bathroom, linoleum on the kitchen floor, and wood shingles are used on the roof. The home was designed by Architect Randolph Evans and built by the Harmon National Real Estate Corporation for Mr. Kenneth G. Patrick, of Orchard Hill, New York.



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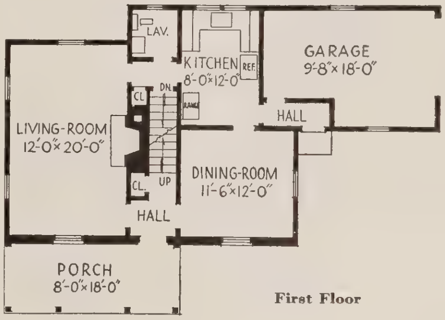
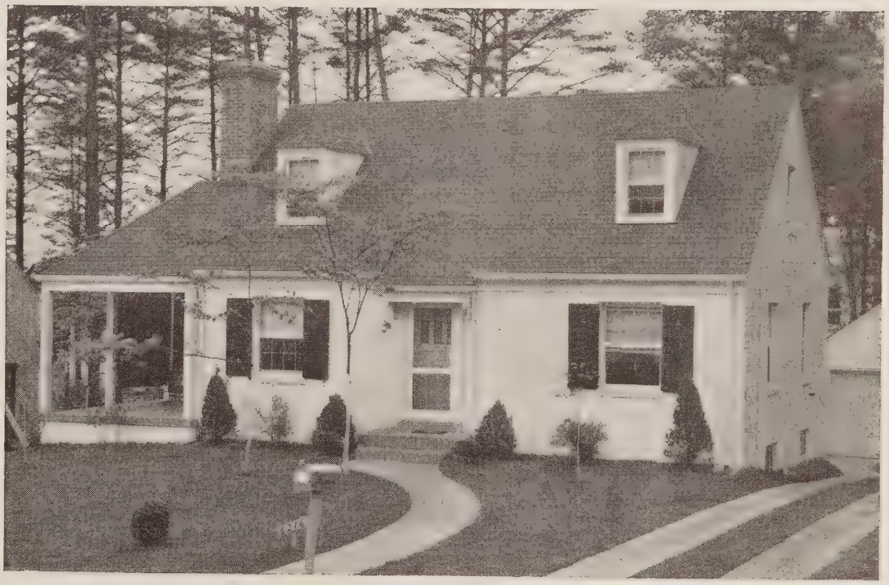


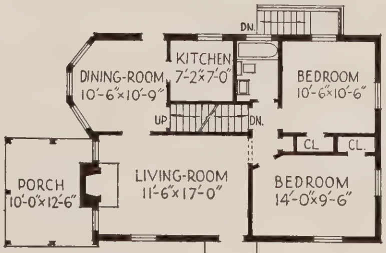
First Floor

In Montgomery County, Maryland

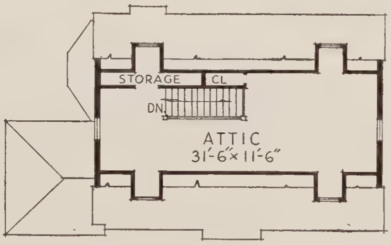
A FEW MILES beyond the city limits of Washington, D. C., Mr. and Mrs. Adolph C. Moran selected a wooded site in Fairway Hills, Montgomery County, Maryland, for their home. Planned from the inside out, it's calculated to give the utmost in convenient, comfortable living for Mr. and Mrs. Moran and one child. The house is built of brick, with two bedrooms, living-room, dining-room, kitchen, bath, and porch on first floor; and the second floor is finished in one room. It was designed and built by Korzendorfer & Brooks, Incorporated, of Washington, D. C.

Materials used in this house are the same as those used in homes of far greater cost—copper piping, furred walls, white oak floors, 6-panel Colonial doors, oil-fired air conditioning, white-pine trim thruout, full insulation, built-in radio antennae, tiled bath, factory-built kitchen cabinets, and a fireplace in the living-room. It's Colonial in design, with white-painted brick walls, green composition shingle roof, and green shutters. Fairway Hills is an F. H. A. development of moderate-priced, restricted homes, near to stores, schools, churches, and transportation; and this home was designed to fit into its scheme.





First Floor



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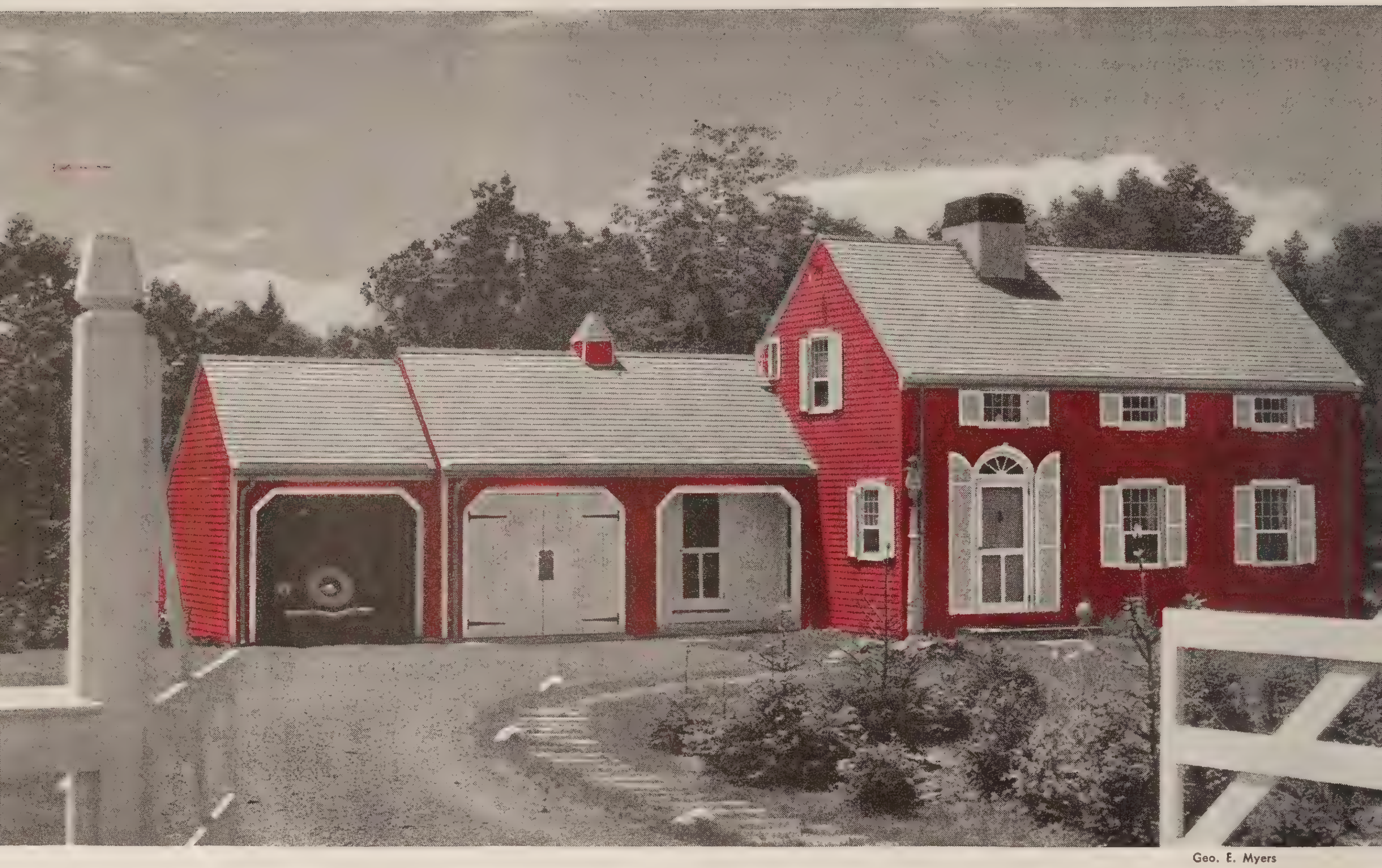


Geo. E. Myers

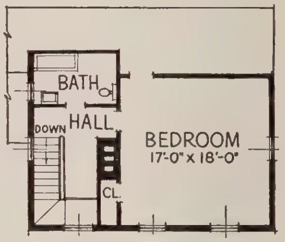
Red Coat in New England

"WE STUDIED everything we could find relating to this style of home as built in Colonial times. We drove all thru the New England states to verify our findings. Each detail is faithful to the period in which this kind of home was created." So says Architect Norris Prentice, designer of this New England home called "Tanglewood." Faithful are the blinds on the front entrance, the "ell" of the wood sheds, and the barn-red exterior with white shutters and trim.

The design fits the site that slopes off sharply to one corner in the rear, turning that peculiarity to its advantage by including a basement recreation room with a large picture window and a grade entrance. The two-story portion is compact, but is given breadth by stringing out kitchen, shed, and garage. The second-floor bedroom is large enough for a sitting-room, too. With its bath it's a complete living suite.

The Wallace B. Goodwin Company erected Tanglewood to set the general style of a new, West Hartford, Connecticut, real-estate development called Woodridge. The Colonial doorway, with its arched blinds flung wide, and its fan light, leads into an atmosphere of yesterday, with dark-stained random-width plank floors in the hall. The black iron hardware, the wainscoting of horizontal boards finished in oyster-white, and the brass lighting fixtures all are authentic. Floors thruout the house are dark-stained random-width planks. The dining-room has a bay window; is decorated with canary-yellow wallpaper above oyster-white wainscoting.

Just off the dining-room in the first shed is the kitchen, with cabinets and counters along three walls of aquamarine tile trimmed with black stripe. Floor is canary-yellow with a black witch design in the center; counters are black linoleum. The bathroom departs from antiquity to have peach tile walls with navy-blue accessories and navy-blue linoleum floor. Plastered walls above the tile are white.



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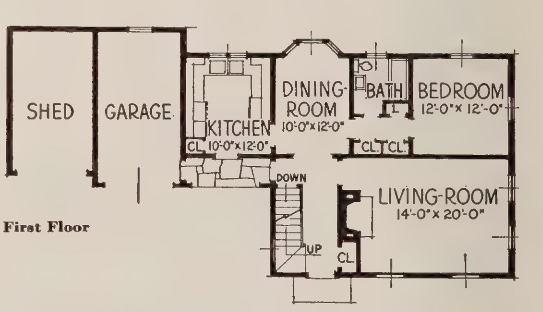

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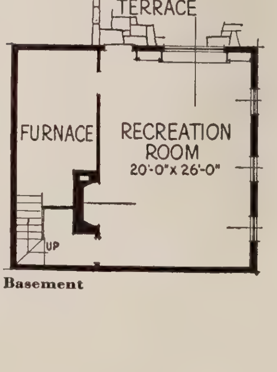
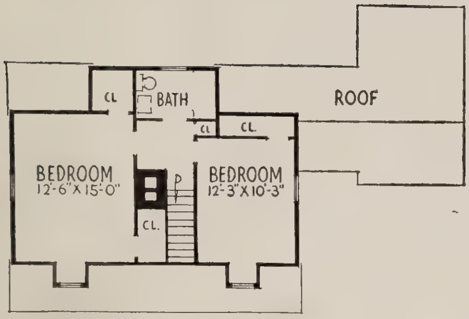


Basement

"Fairhaven" Has Six Rooms



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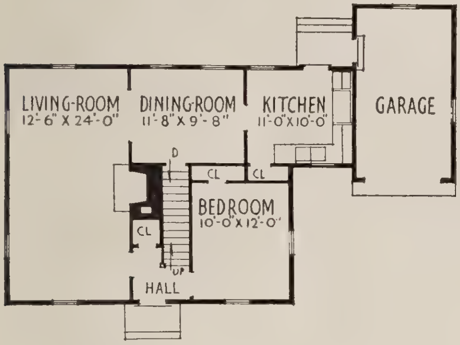


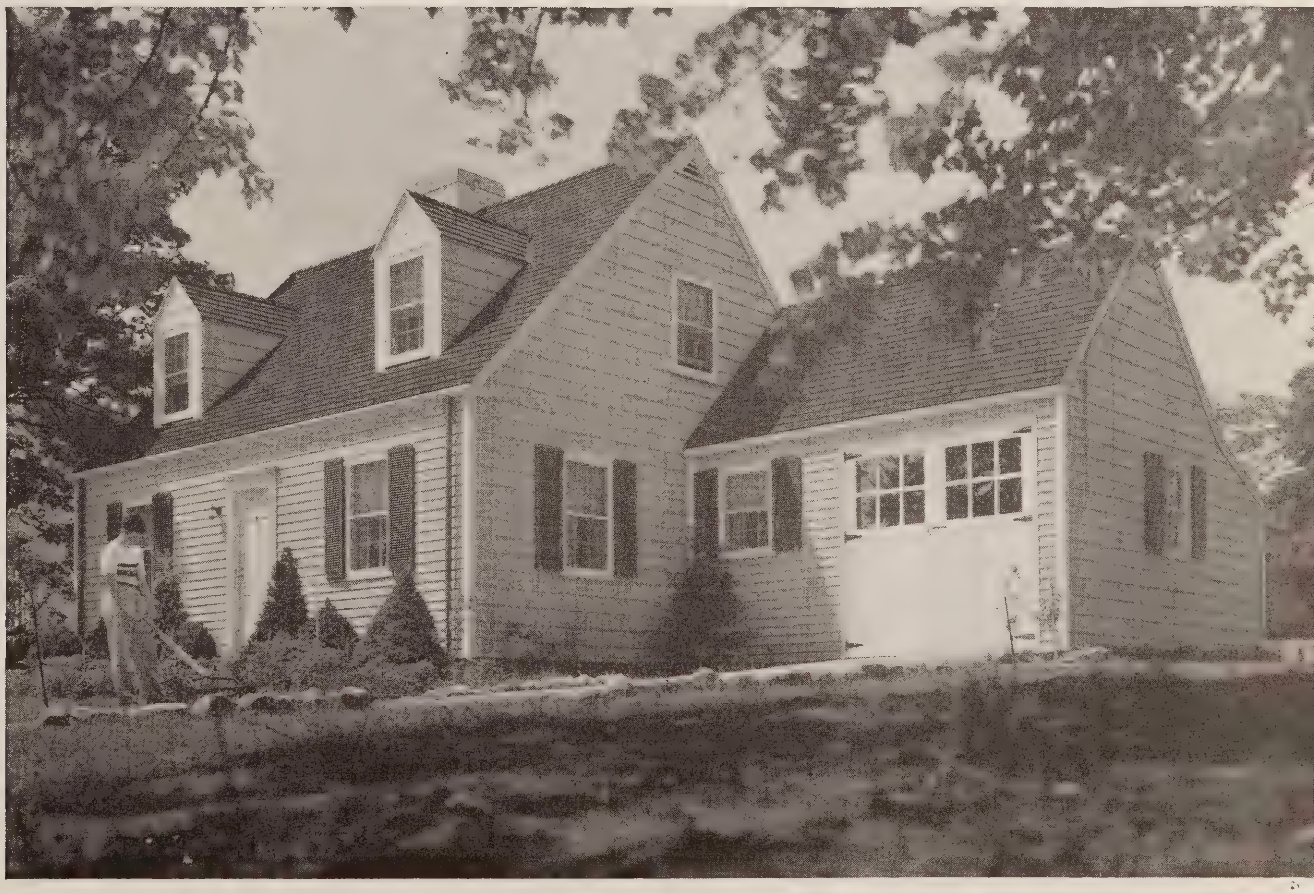
First Floor

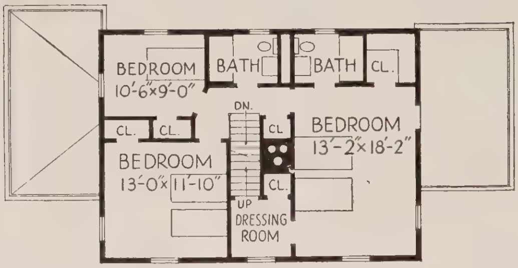
DESIGNED BY Architect Walter B. Kirby, this home of Mr. and Mrs. Charles F. Dalgren and son has many features to commend it. The Dalgrens wanted a six-room house of low cost, and Architect Kirby achieved this result thru the use of pre-engineered steel joists and studs, with room sizes and the house itself designed to take factory-size materials without cutting and waste. It was built in Darien, Connecticut, by American Houses, Incorporated. The inclusion of one bathroom reasonably accessible to the three bedrooms; readily accessible attached garage; cross-ventilation in all rooms except the dining-room; simplicity of plan, construction, and of exterior and interior finish materials—all contributed to the successful solution of the problem to produce the final result of an appealingly attractive home.

The interior walls and ceilings are formed from cork gypsum wallboard, the walls being papered and the ceilings painted; and the entire home was insulated with glass wool. Floors are of oak, plumbing fixtures of a high grade, and hot and cold water piping is of copper tubing. Outside, the walls were painted a pearl gray, the wood-shingle roof is blue-black, and the shutters offer delightful contrast in their royal-blue coloring. The home is heated by a steam boiler, with oil burner.

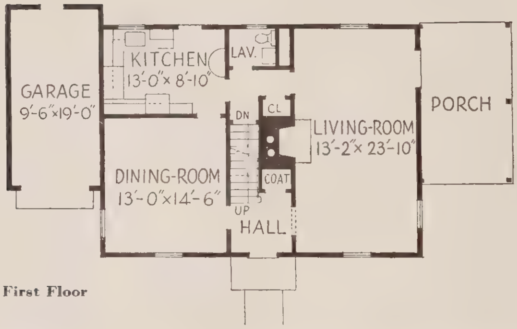
There's a conveniently large coat closet just inside the front door, and thru the economy-size hall we pass into a large living-room with a cozy fireplace. Around the corner is the dining-room from which the stairs descend to the basement. On into the kitchen, we see an efficient, L-shape counter arrangement, and a sheltered way to the garage. Altho designated as a downstairs bedroom, the room to the right of the entry hall might be delightfully employed as a study or serve as a second entertainment center, separate from the living-room, if desired. The upstairs bedrooms are generously apportioned their closet spaces, and there's a linen closet in the hall. Unbroken wall spaces thruout permit originality in furniture arrangements.

Richard Averill Smith





Second Floor

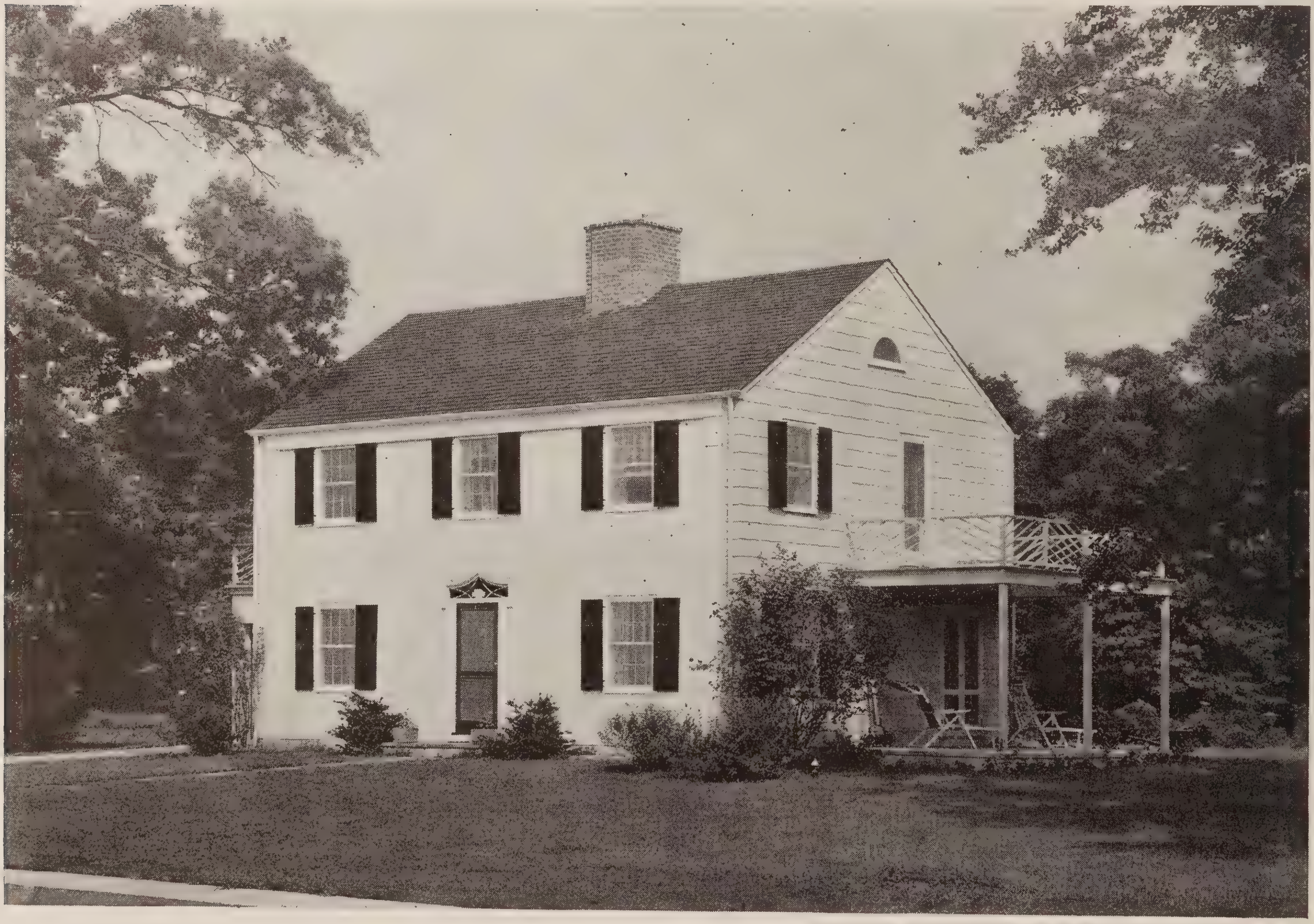


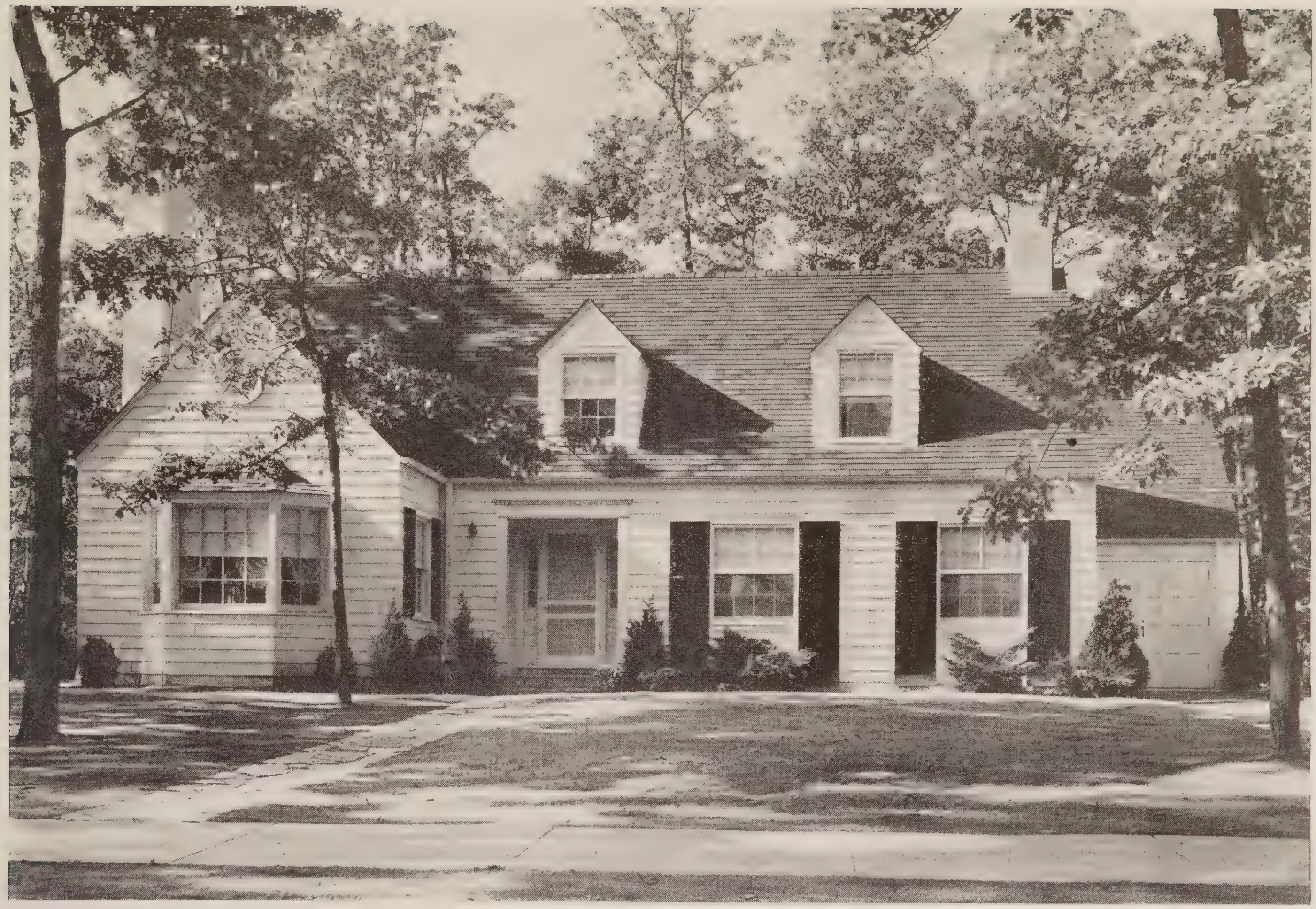
First Floor

Smooth Wood Front

VERNA COOK SALOMONSKY, New York architect, designed this home built by "Spencer Glen" builders in Harrison, New York. Its present owners are Mr. and Mrs. Robert Neal McGrath. Of Georgian type, it fits naturally into the landscape, and both the pilasters at the ends and the doorway with its leaded-glass transom enhance the front elevation of smooth, white siding. The porch and garage wings, with similar Chippendale balustrades at the second story, broaden the effect.

The house is of frame construction, with oyster-white asbestos shingles on three sides. Shutters, louvered above and paneled below, are a dark bottle-green, and the roof is of black Bangor slate. Walls and second-story ceiling are insulated. Inside, minimum halls permit large rooms. The short passage from the kitchen to the living-room makes both accessible to the lavatory and basement, and facilitates serving on the porch. There's ample closet space upstairs and down, and the owner's bedroom is especially favored with a built-in dressing table in the dressing room. The classical-design living-room mantel has black slate facing and hearth. The interior walls thruout are finished with a gypsum board instead of plaster.

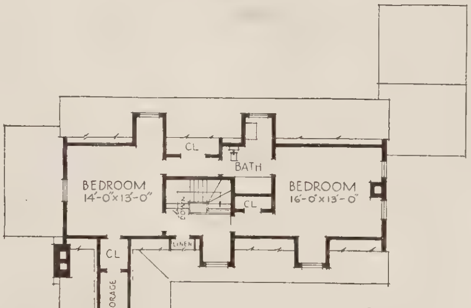




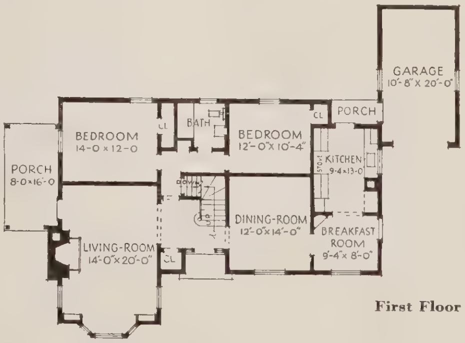
Hedrich

Seems to Hug the Ground

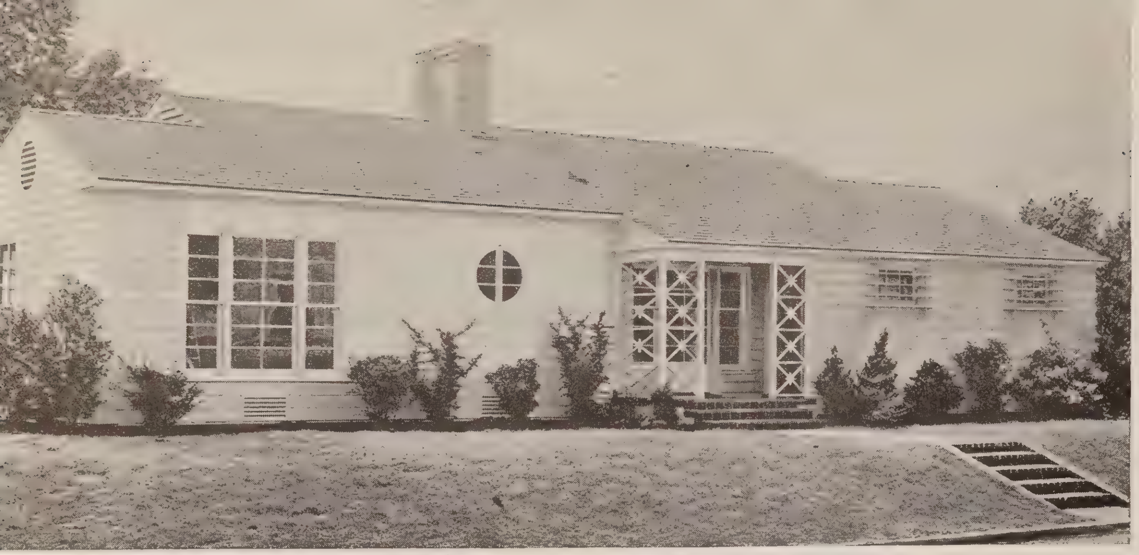
A GOOD ONE-STORY room arrangement combined with a distinguished exterior is rare, indeed. But Architect Walter Huenemoerder, Chicago, has succeeded in his design in bringing about both these very desirable features with, you'll note, two rooms and a bathroom in the upstairs portion. The first-floor plan provides for a recessed entrance in fine scale, opening into an attractive central hall, with a large coat and sports-equipment closet. The arched doorway into the living-room opens a lovely vista to the fireplace, and the bay window is not only a delightful accessory to this room, but an attractive feature for the exterior gable wing. The bedrooms at the rear are sequestered from the living quarters, and the arrangement of breakfast room between the dining-room and kitchen is good. The garage is connected to the house by a small service porch providing comfortable and convenient all-weather communications between the two. On the exterior, shutters carry the lines of the home to the ground, and the dormer windows are in beautiful scale with the gable end. So appealing is this design that Mr. and Mrs. Ralph Stone, of Detroit, Michigan, had their own architect, H. Augustus O'Dell, adapt it to their needs when they built their new home.



Second Floor



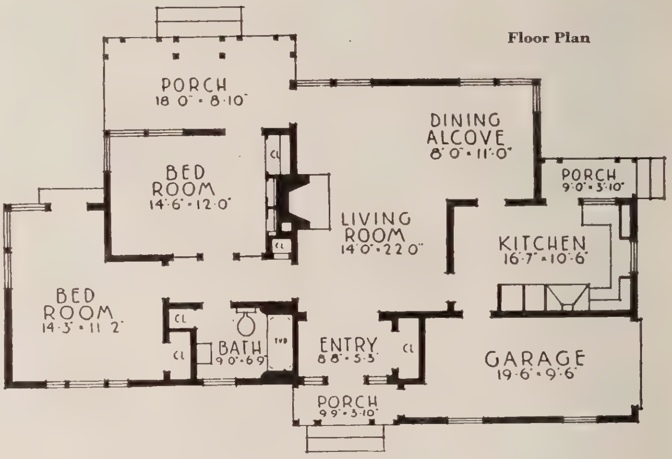
First Floor



Southern Pine Association—Photograph by F. A. McDaniels

Spacious Living in 4 Rooms

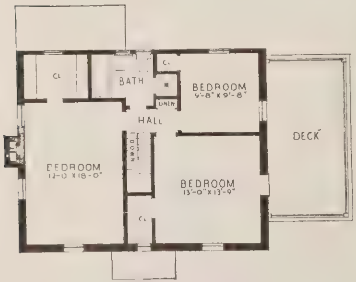
THIS MODEL BUNGALOW, shown at the Texas Centennial Exposition at Dallas, demonstrates Southern Pine as a structural and finish material. The house, distinctly Modern in design and arrangement, can be built at a cost ranging from $4,500 to $5,000. Living-room and dining-alcove walls are covered with Southern Pine boards laid horizontally, with moulded joints, and finished in natural color displaying the wood's grain. Main bedroom has V-joint boards laid horizontally about to chair-rail height, and the walls above are covered with vertical pine paneling. In the second bedroom, pine-board finish has wallpaper over canvas. The garage, built as part of the home in the "L" formed by kitchen and front entry, uses louvered windows, as you note to the right in the picture, to form an agreeable feature of the front wall. And the bathroom's round window in the front wall Architects Goodwin & Tatum have repeated as a decorative feature in the gable. All the rooms are of generous size.



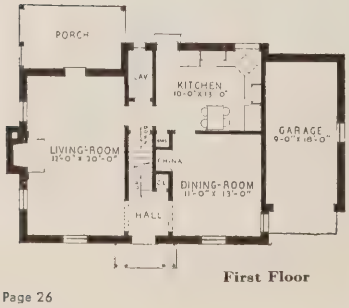
Floor Plan

Just 6 Rooms but Imposing

THIS WELL-BRED little envoy of good planning and good building, designed by Architect Maxmillian Johnke, is in West Hempstead, Long Island. It has the symmetry and formal lines of a French Manor. Its simple and classic form belies the small size. The exterior is whitewashed brick below smooth plaster, and blue blinds to the ground strike a rich contrast. All eaves, outside piping, and entrance-door roof are copper; the roof is slate. Access to the garage is thru the dining-room. Thruout the house, floors are oak, the pine trim painted and enameled off-white. The dining-room has a recessed china cabinet, and radiators are recessed to save space. The deck over the garage is reached thru a door in the guest bedroom. Wallpaper thruout the house is Colonial—in the dining-room a figured deep blue above a wainscot enameled off-white. The living-room has a large Colonial, pine-mantel fireplace, and the porch is reached thru a French door, which, with the windows, lends much sunshine and light. A fine feature of the step-saving kitchen is a central unit which not only illuminates, but ventilates and cools as well, insuring a pleasant working center.

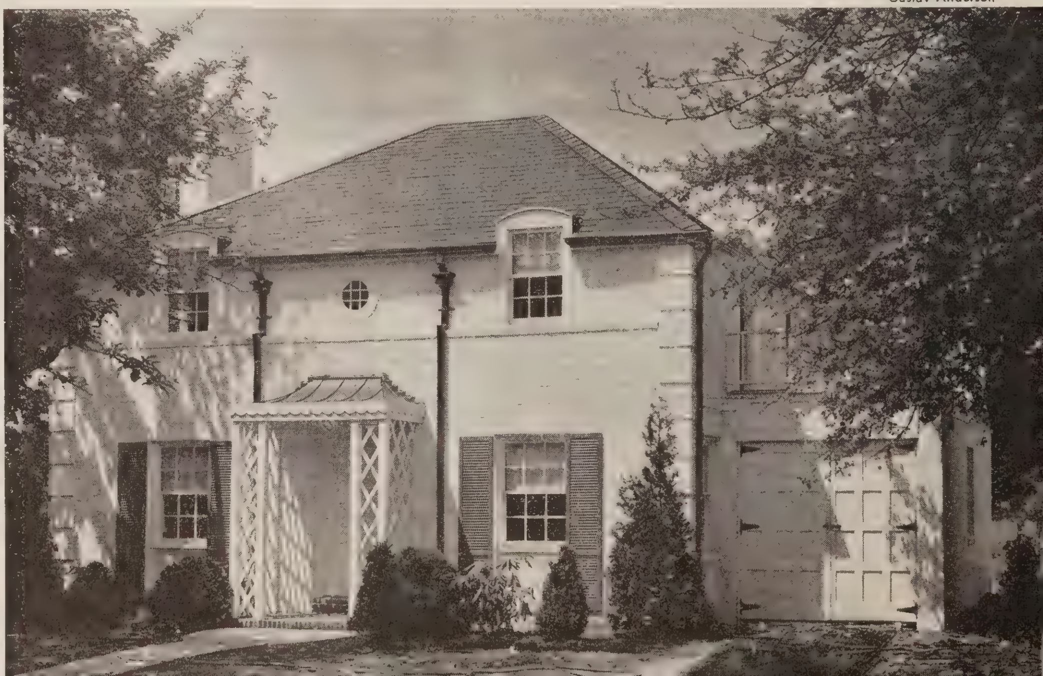


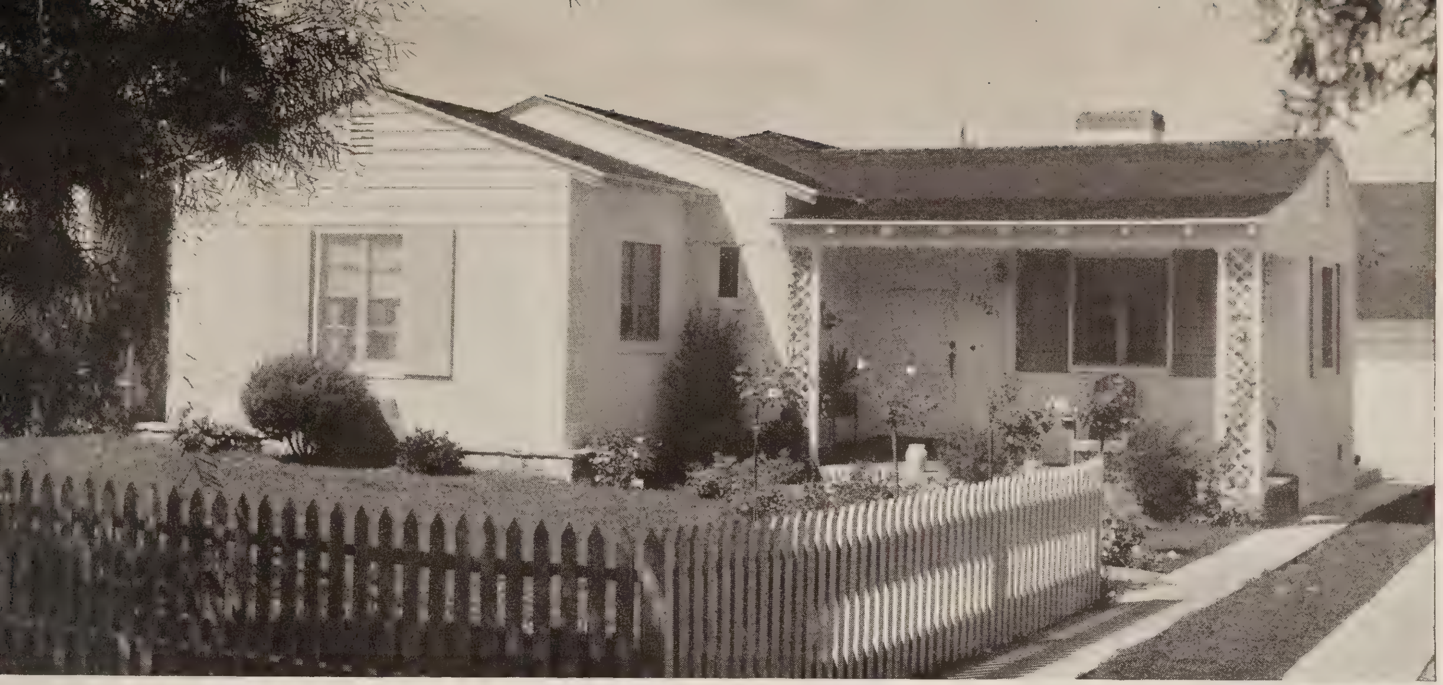
Second Floor

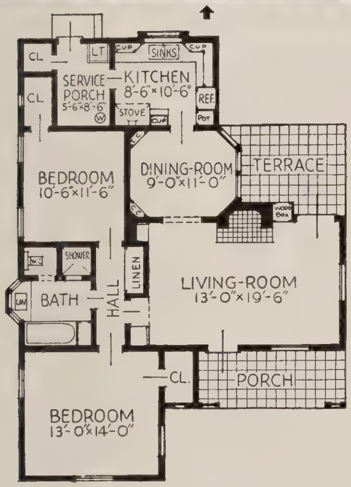


First Floor

Gustav Anderson





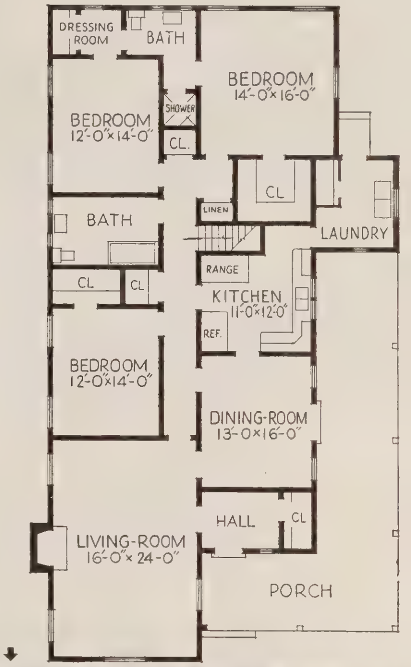


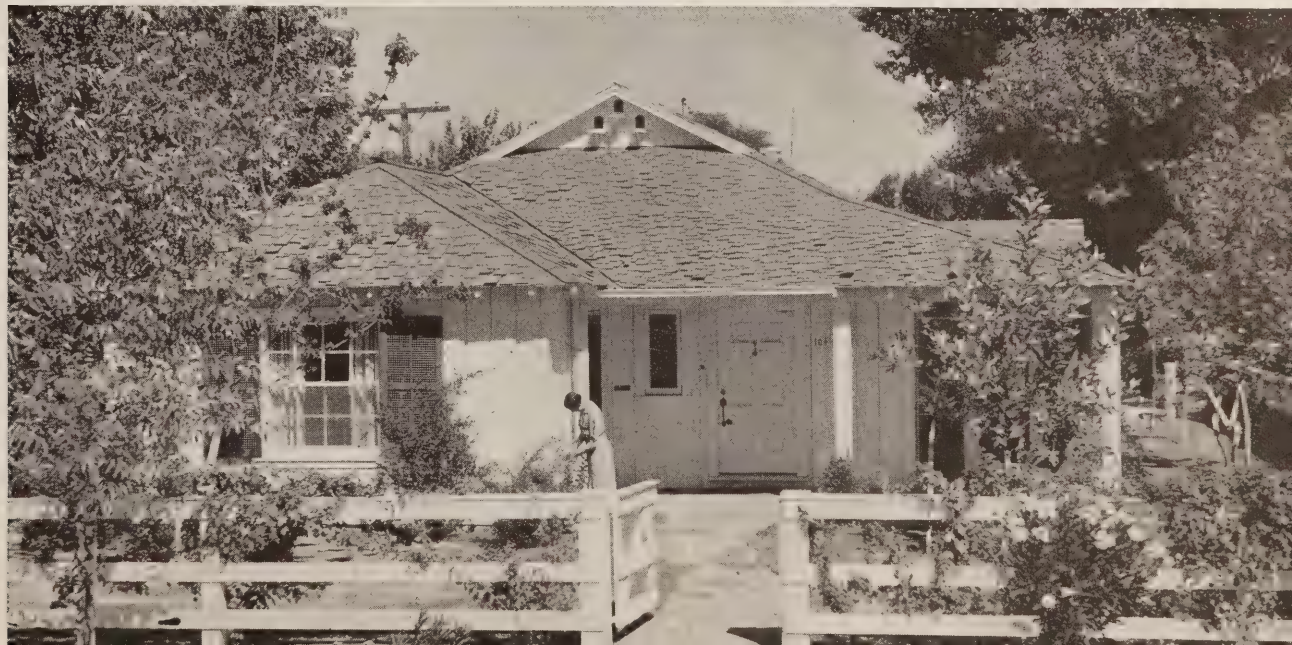
Glass-Sided Dining-Room

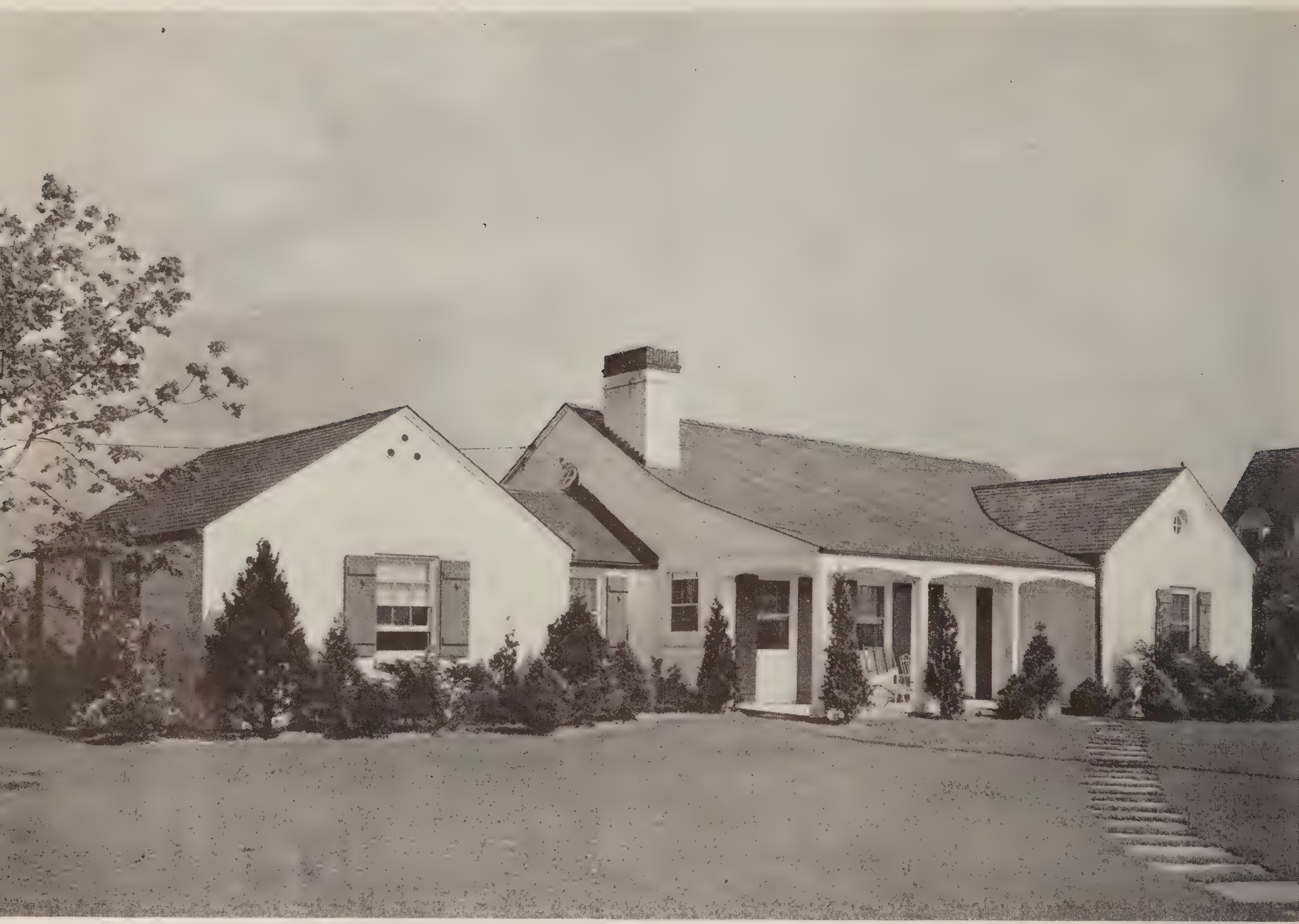
THIS NORTH HOLLYWOOD home of the C. Duncan Huttons was designed by Architect Leo Bachman and built by William Mellenthin. Adaptable to the rest of the country is its trick for out-of-doors living around a garden terrace. Two glass sides of the dining-room look out on the terrace. Notable feature is the bathroom with separate shower stall, tub, separated toilet stall, four-drawer cabinet for linens, and lavatory with wide dressing tables to each side. Three materials were used on the exterior: vertical siding, plaster, and boards and battens. Panel shutters repeat the lines of the boards above, and a scallop carries around the porch to the plaster wall.

Borrowed From California

HERE'S A SMALL HOME adapted to California that has hopped the Rockies to tease the Middlewest. Seven rooms sprawl 72 feet at ground level, and three-fourths of a 42-foot porch is screened for outdoor living. Architect Clarence Cullimore designed it; Alva Hackney and Sons built it for the Walter Wickershams of Bakersfield. Some of California's devices for enjoying the open may be borrowed—the patio and loggia turned to roofless terraces; rambling porch offset so that it won't darken rooms; living-room opened to the garden with a big window; build only a few inches above ground. But, all in all, we'd best leave California architecture to West and South where sprawling foundations, wide eaves, and snow aren't problems.

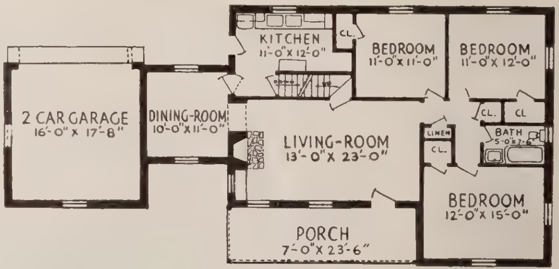






Portland Cement Association

All Concrete, and White



THIS IS the home that the Harry Heddon Smiths, of White Plains, New York, couldn't resist when they happened to see it one night in the moonlight. And when they examined it in the light of day, its inner appointments fully justified its outward beauty. It's all concrete, flame-defying, designed by Architect Earl G. Nelson, of Yonkers, New York, and built by Homecraft Service, Incorporated, of Greenburg, New York, with cement applied over the ashlar blocks to give a rough texture. It has a slate roof and blue shutters which contrast beautifully with white-painted walls. Precast concrete slabs and beams were used in the construction of the floor, while inner partitions are of metal lath and cement. Under the kitchen sink is a vegetable storage bin concealed by a grille. Beside the sink is an electric dishwasher combined as a unit with the sink. Kitchen walls are papered in blue and white, with blue trim on the white cupboards, and blue linoleum.

All other walls are papered, too, with one end of the living-room paneled in pine. Especially appropriate is the paper in the bathroom, which is ornamented with solemn groups of penguins—possibly because Mr. Smith was at one time connected with the New York office of the Byrd Antarctic Expedition. Floors of other rooms are all oak laid over concrete with air space between. While the present basement includes only a laundry, there's plenty of space for a game room if in the future the Smiths should decide that they would like such a room in which to entertain themselves and their guests.

The garage forms an attractive unit with the house proper, connected by the dining-room wing. This arrangement also has merit in effectively separating the work or service areas from the living portion of the house.

The sweeping roof combined with the attractive landscaping holds this home to the ground as solidly as its concrete construction deserves, and the arches and slender columns supporting the porch roof add a delightfully pleasing touch to the appearance of the home. Bedrooms are of good size and are provided with ample closet space, while there are two closets for linens and coats in the brief hall that ties the three bedrooms and bathroom together.

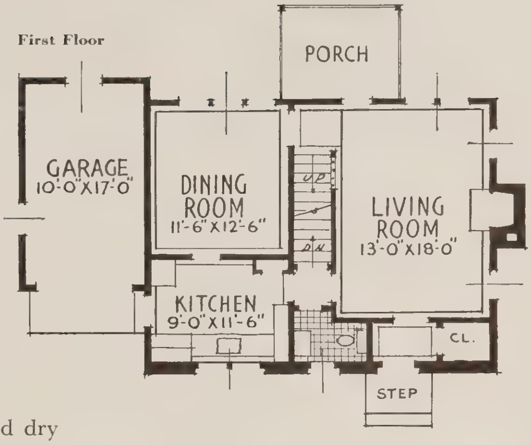
Little Home in the Woods

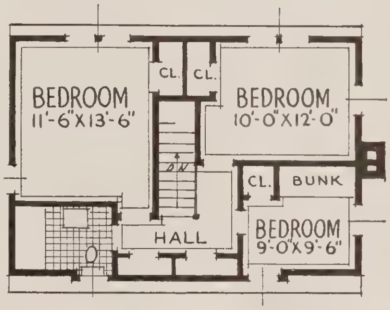
NOTE IN the floor plans for this home how Architect Theodore Whitehead Davis lets the family live at the back of the house to have the joy of the lovely wooded slope there, and how he has segregated the service portion of the home and, to conserve plumbing, put the bathroom in the front. Large mullioned windows on the first floor face the rear view, and the small porch is placed so that it does not interfere with this view. The fireplace wall of the living-room is paneled in honey-color, waxed pine; walls are papered in aqua color. The dining-room is in pale yellow, with paper above a chair rail. Floor beams are supported on steel beams at each side of the stairwell, making for economy and strength. The short driveway serves both the kitchen door and the combination entrance hall and storm-vestibule. And this vestibule, incidentally, boasts a large coat closet.

Upstairs we find large linen closets at the head of the stairs, and in the smaller bedroom, a bunk. Both the other bedrooms are of good size, with fine closets, and all are conveniently adjacent to the bathroom. In the basement, the laundry room and heating room are together underneath the living-room, leaving the big space under the dining-room and kitchen free for a light and dry game room—for the lower grade line permits large steel sash in the rear.

Upkeep will be simple, for the gambrel roof and the front stonework reduce the area of outside painted walls. The exterior has a color scheme of dark-brown wood shingles, white wood walls, brick chimney, and trim; with dark Indian-red shutters and front door. The home was built by Trowbridge & Davis, of Port Washington, New York, and its plan will merit study.

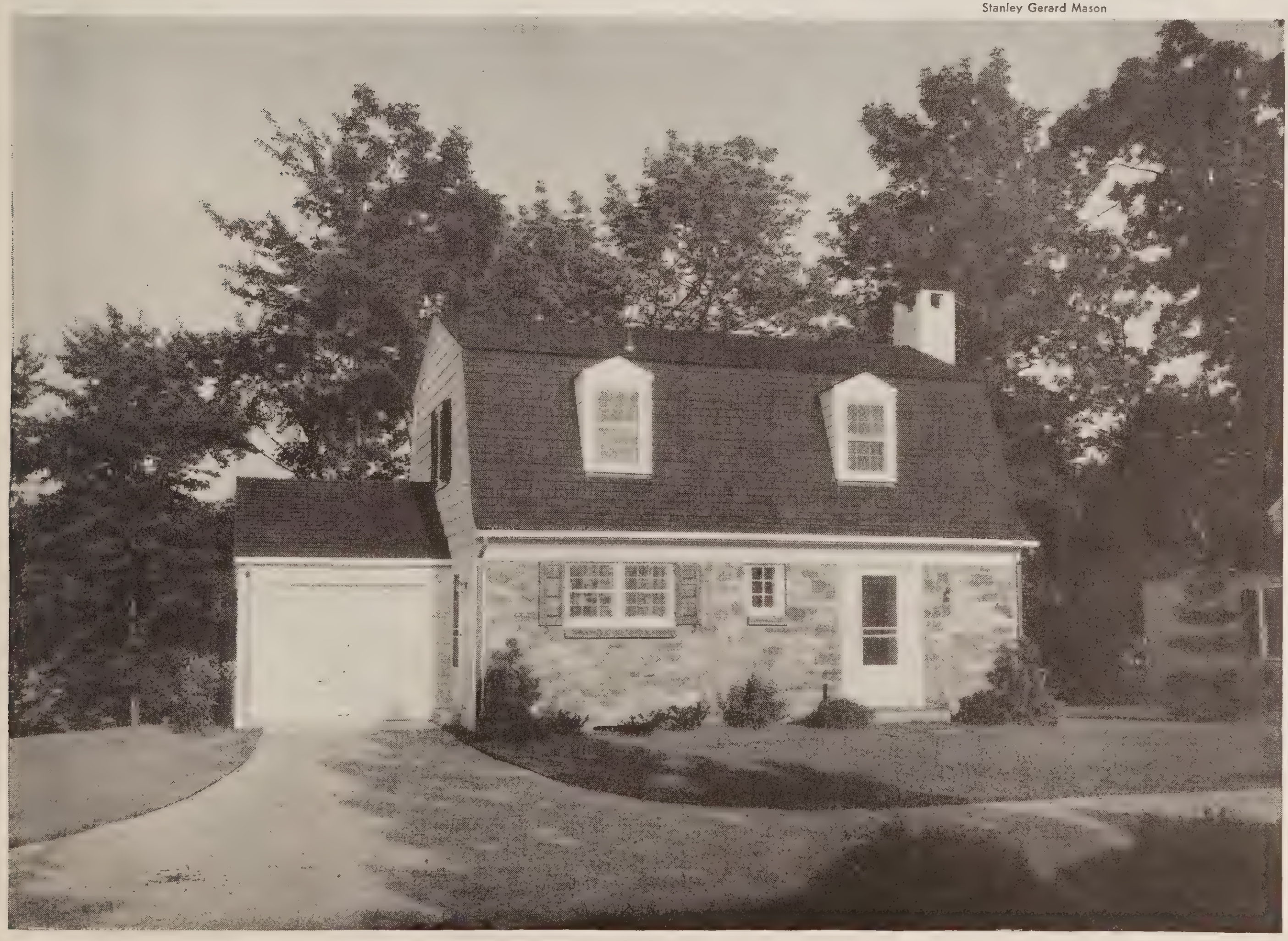
First Floor

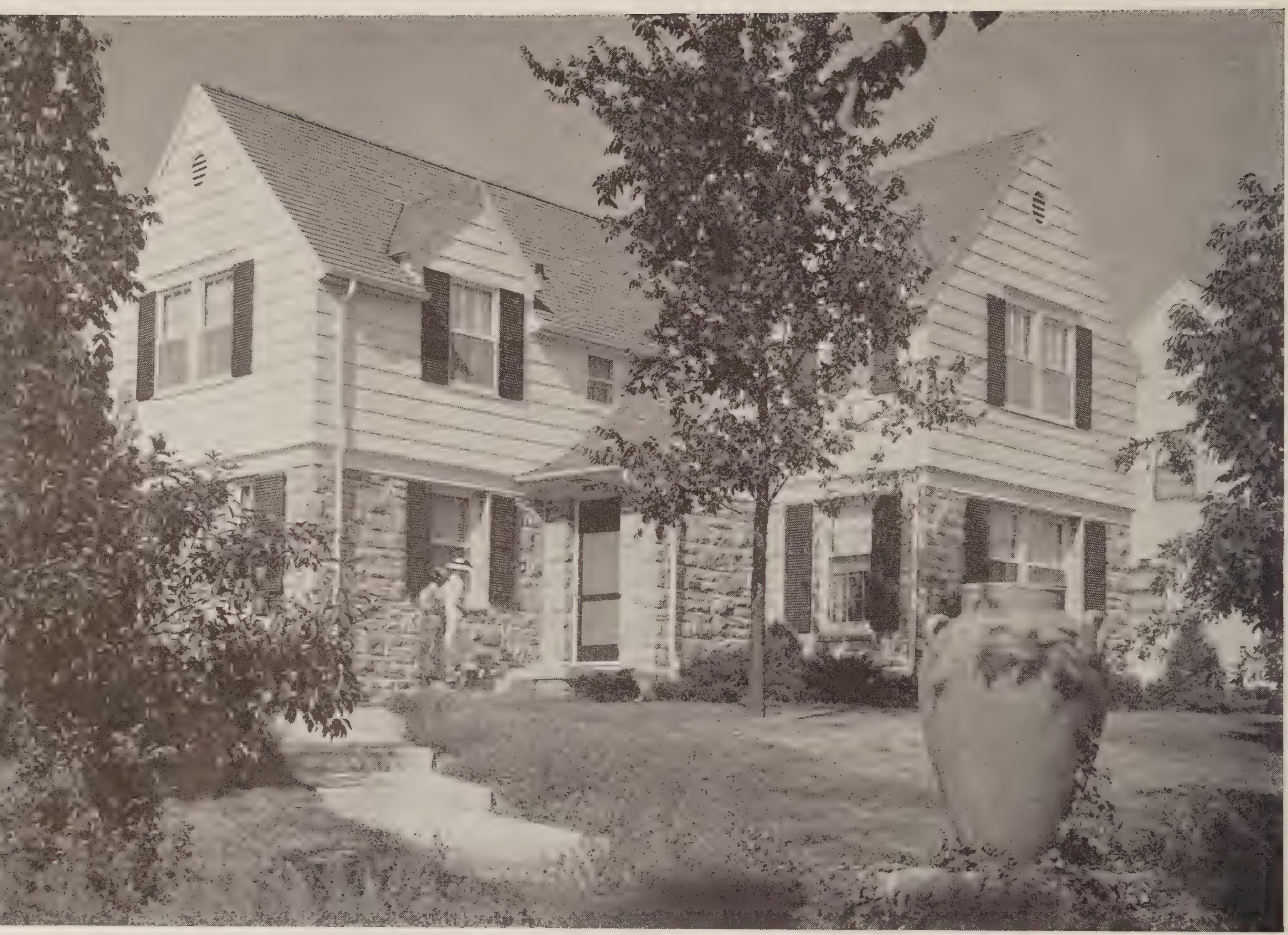




Second Floor

Stanley Gerard Mason





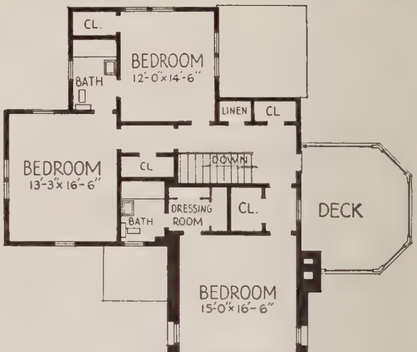
Tyner & Murphy

Whitetop on a Hilltop

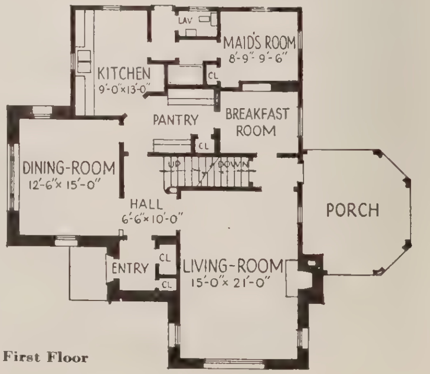
ARCHITECT Edward W. Tanner designed this home and that on page 31, and both were built by J. C. Nichols, in the Country Club district of Kansas City, Missouri. This is the home of Mr. and Mrs. Carrington Clark, which is on a corner lot facing south and west, with a wonderful view across a boulevard to a golf course beyond. Excellent orientation permits every room to catch the sunlight sometime during the day. The unusual arrangement of dining-room, pantry, and breakfast room in this plan offers a variety of interest in the serving of the different meals thru the day. Another unusual arrangement is that of the maid's room and bath, efficiently conserving space.

Good planning is also evident in the second-floor arrangement—the hall with outside light and the two linen closets. Here we have three bedrooms, one with a private bath, and the others served by the one bath between. There's abundant closet space for all three rooms, and the large one has also a handy dressing room with closets on two sides.

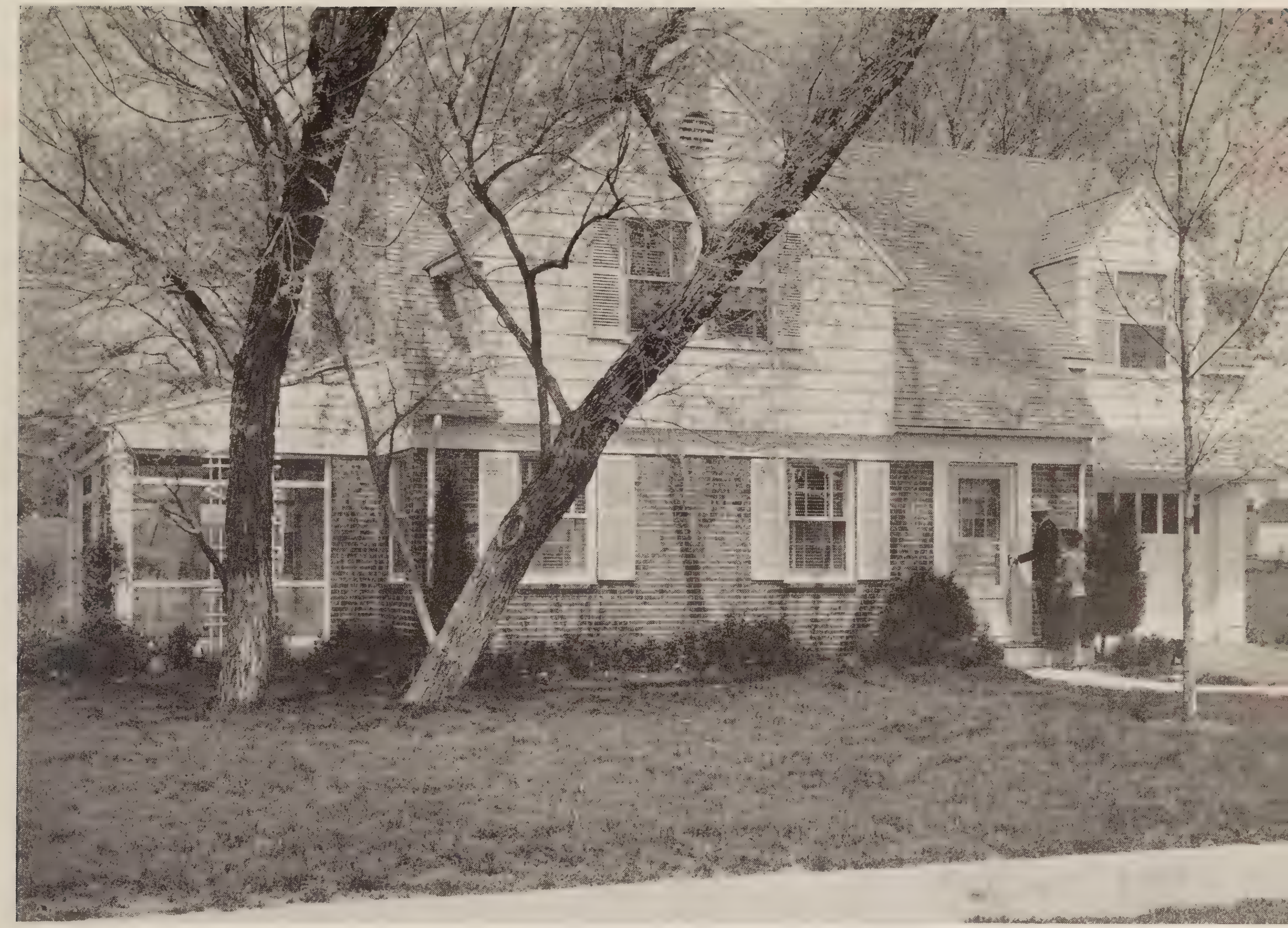
Outside, the color scheme is lively. Shutters are deep moss-green, the roof a weathered slate-gray, and the front door gay with Chinese red. An interesting feature inside is the breakfast room, fitted with recessed shelves and furnished with a drop-leaf table and a small desk so that it's a combination breakfast room and study and can be used for either. The screened, room-size porch, with north, east, and south exposures, is so placed that it can be used for summer eating out-of-doors, as well as for cool, restful leisure hours. Architect Tanner has kept the woman's point of view continually in mind, planning the house to lessen housework, installing, wherever possible, efficient "built-ins"—placed in kitchen, bathrooms, closets, and dressing rooms. Altho adding only slightly to the cost, the use of contrasting materials on first- and second-floor exteriors has reduced its apparent height to fit it to the topography.



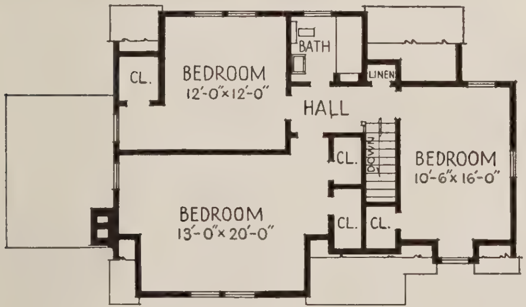
Second Floor



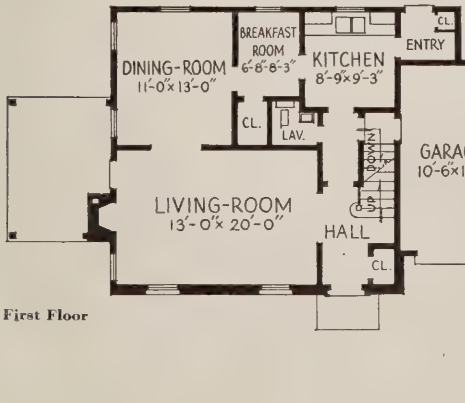
First Floor



Tyner & Murphy



Second Floor



First Floor

Brick and White Shingle

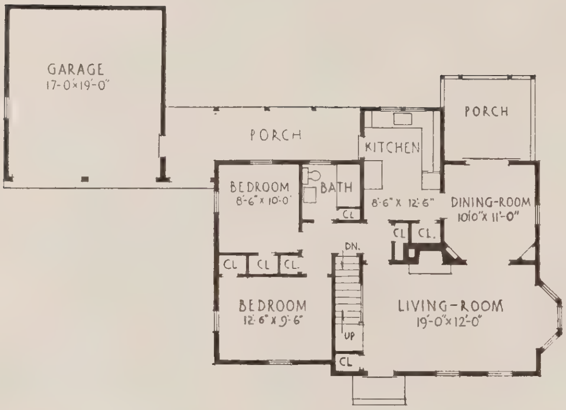
JOINING TWO exterior materials is a real problem, but, when properly done, the combination produces an effect of great beauty. Here, in this Kansas City home, Architect Edward W. Tanner has done so exceedingly well, with a white wooden band course and a slight flare to the wall just above it; while the scallop detail along the band course helps lift the house far above the mediocre, too. The home was designed for Mr. and Mrs. Howard K. Nelson, of Kansas City, and was built for them by J. C. Nichols.

The design is a modified Colonial, and the home is placed on a southwest corner, with lawn sloping gently to the street. It was planned to take full advantage of two lovely willow trees that shade its screened porch and the largest bedroom. This screened porch, a cool basement recreation room, and many windows adapt the home to the sun-heavy Middlewestern summers.

Brick in warm tones of red and salmon, and shingles painted off-white, have been used in its construction. First-floor shutters are painted white. On the second floor they're a warm gray to harmonize with the shingle roof of a somewhat darker shade.

The entry hall has a convenient coat closet, insures privacy for the living-room, and yet is directly available from the kitchen. The unbroken wall spaces in the living-room allow great latitude in furniture arrangement to be set off by the cozy fireplace. The downstairs lavatory off the hall is well isolated. The dining-room is available to the kitchen thru the breakfast room. The attached garage is directly accessible from the hallway, insuring comfortable communication in all kinds of weather; and we descend to the basement from this hall, too. Upstairs we find particularly fine closet space for the three bedrooms.

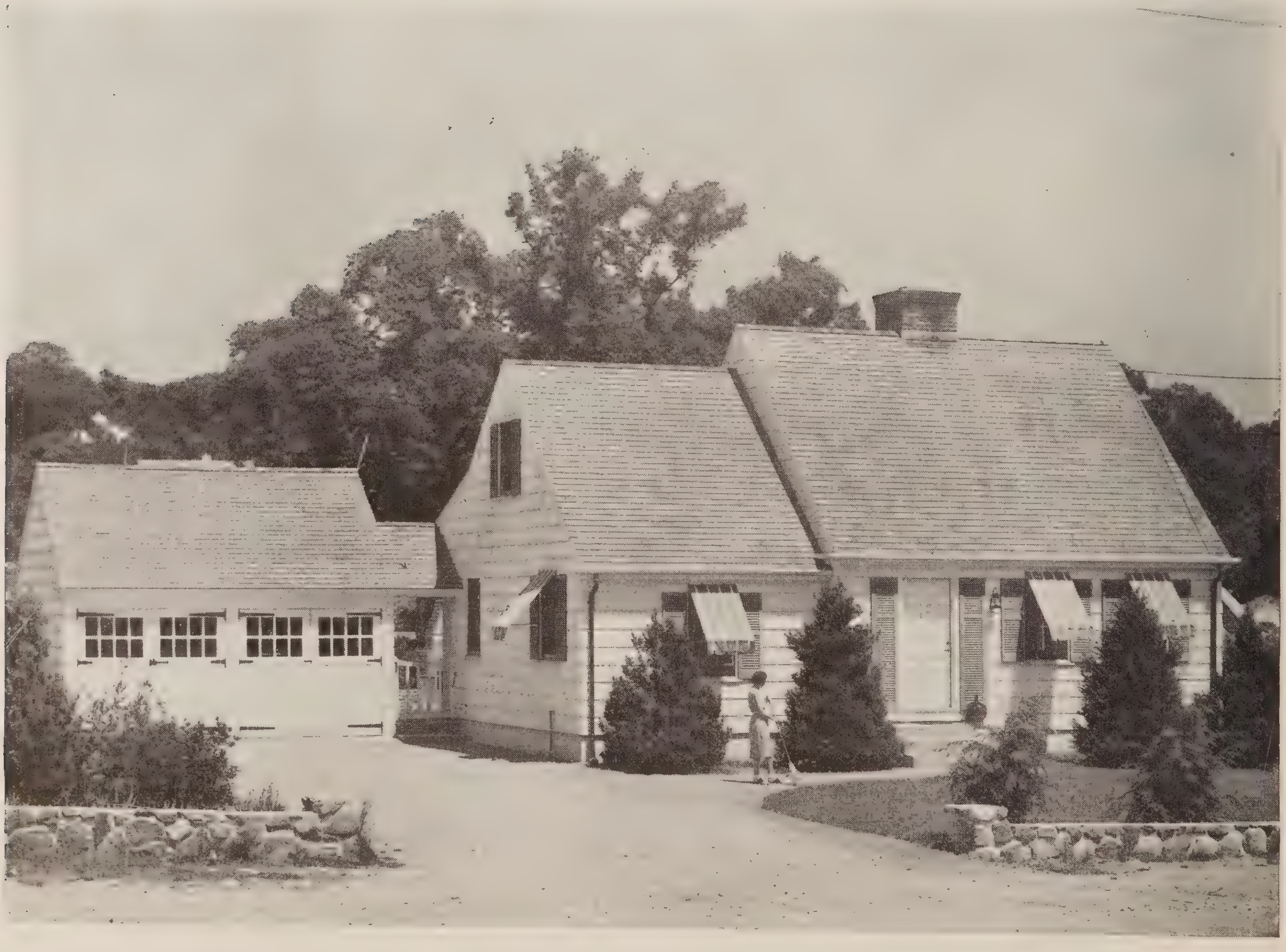
Two Porches at the Rear



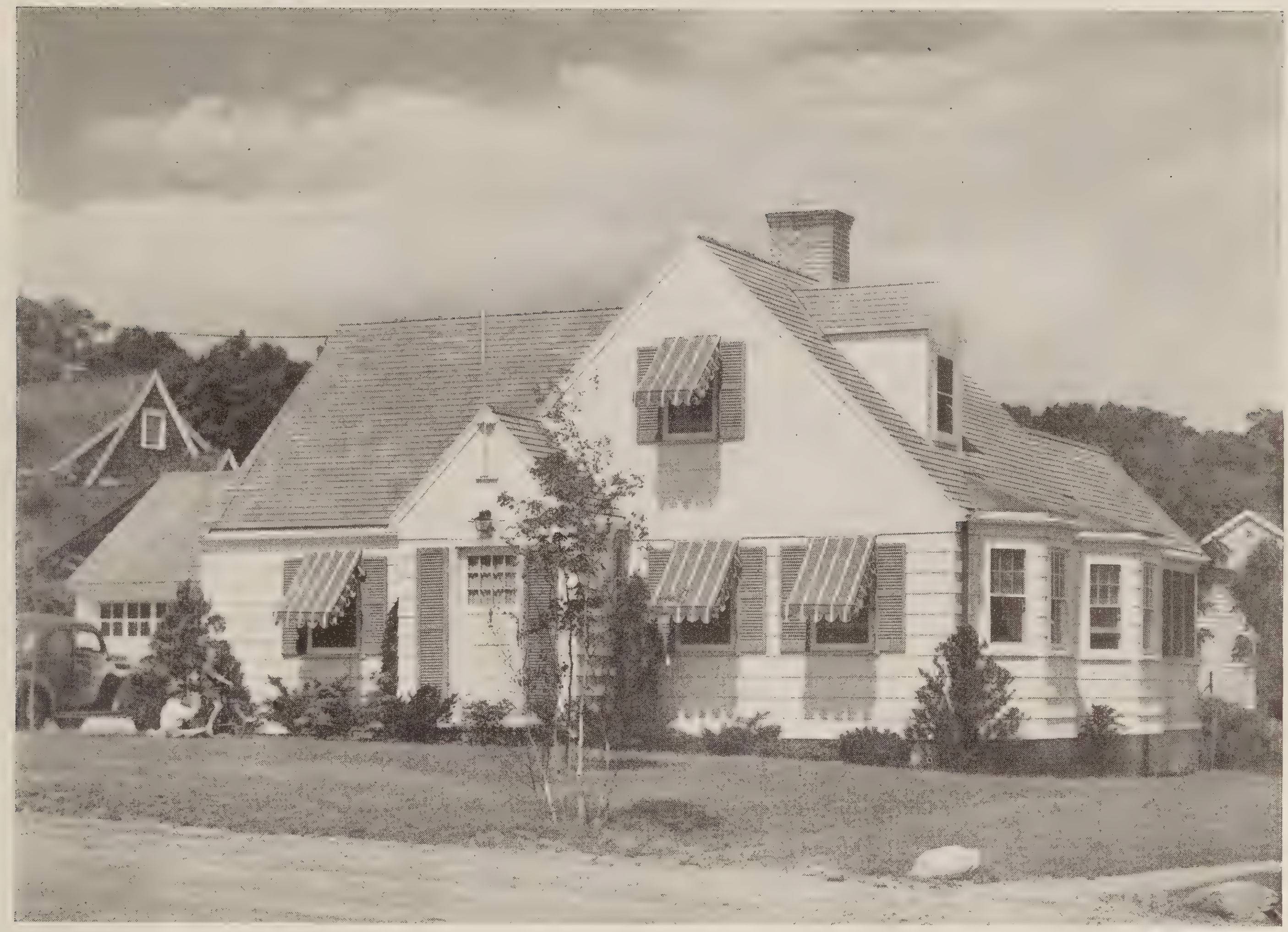
THIS HOUSE was designed by Walter Bradnee Kirby, of New Canaan, Connecticut, and built by William P. Varian, of Glenbrook, Connecticut. Its exterior appearance vouches to the fact that it is a cozy little home for a family of three or four. Its construction is frame with concrete-block foundation walls, and with exterior walls of wood shingles painted white. The roof and shutters are stained gray. Just inside the front door is a roomy closet for wraps and sports equipment. The large living-room is made cozy by its fireplace, and is paneled in knotty pine, while the rest of the walls of the house are plastered and papered.

From the living-room there's a fine vista thru the bay window to the outdoors, and thru the wide door of the dining-room to the porch and garden at the rear. Corner cupboards in the dining-room have decorative possibilities, and, of course, there's opportunity for outdoor dining on the screened porch. The kitchen has the efficient "L" arrangement of counters and a large closet back of the fireplace for the accommodation of a great deal of kitchen equipment and accessories, such as a sweeper, ironing-board, and brooms, or canned goods. The double windows over the sink and the work counters assure plenty of light and air and a pleasant view of the wooded slope to the rear while carrying on with household duties.

The centrally located bathroom is convenient to all rooms, and the partition of closets between the two bedrooms provides them with clothing storage space and a linen closet in the hallway convenient to this group of rooms. In the bathroom, too, is another closet for readily available storage of linen. The long porch outside the kitchen door connects the garage to the house with a covered passageway for all-weather communication between the two. And the big double garage provides for the possibility of a work bench and plenty of storage space for storm sash, gardening tools, and the like.

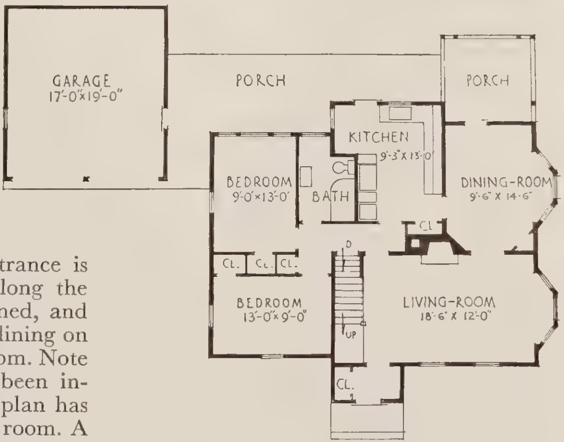


Richard Averill Smith



Richard Averill Smith

Sturdy Frame-Beauty



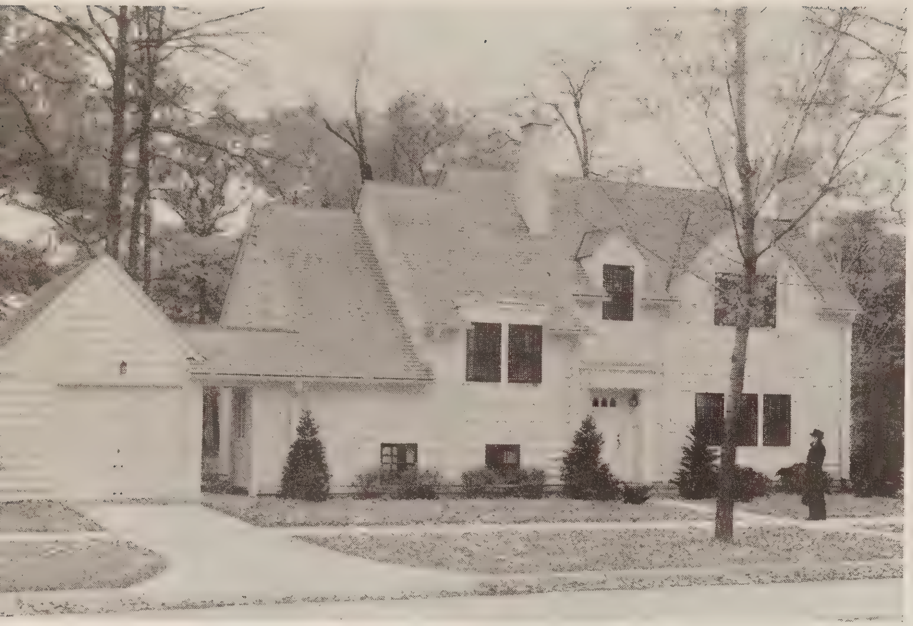
OF COURSE, you have glanced already at the picture above, and in all probability have noted the sturdiness of appearance of this home which seems to belie the fact that it is of frame construction. The shadows of the lap of the boards covering the lower story offer an appearance of strength to support the smooth siding of the upper story. Dark gray shutters and the two bay windows add to the effect and at the same time to the beauty of the exterior appearance. The walls are ivory-painted, while the roof is of gray-stained, wood shingles.

And now, have you compared this floor plan with that of the home on the opposite page? At first glance at the exteriors of the two homes, one would never suppose that the floor plans would be so similar. The addition of a bay window and the entry hall, which includes a larger coat closet than that on the opposite page, and the change in the direction of the gable, have so altered the appearance that this home seems a great deal larger than that on the opposite page; and yet overall dimensions are only two or three feet greater.

The kitchen has been slightly enlarged by lengthening the ell to include part of the porch and bathroom, and several of the closets in the other plan have been eliminated to permit increasing the size of rooms and halls. The kitchen entrance is direct from the rear, the porch along the back of the house has been widened, and there's still allowance for outdoor dining on the screened porch off the dining-room. Note that the bay window which has been included in the dining-room in this plan has increased the apparent size of this room. A slight change in the position of the chimney has eliminated one of the corner cupboards in this room, but still there's the corner cupboard in line with the bay-window wall.

This house is another of Walter Bradnee Kirby's designs, and was built by William P. Varian for Charles C. Olson of Glenbrook, Connecticut.

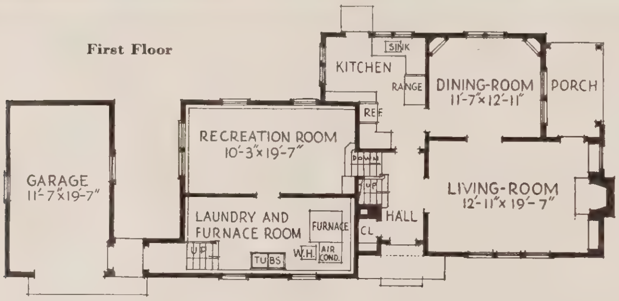
These two home plans offer example of how this book may be of help to you in planning your home. Possibly you will find a plan that, with slight alterations, can become the floor plan of your own new residence.



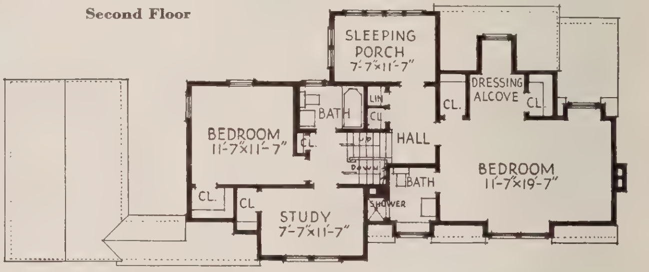
A Four-Level Home

THE APPEALING informality of the appearance of this home is a result of designing it in accordance with the individual preferences of the family. It is built on four levels, creating a great deal of interest in the exterior, with due attention given to vistas, available light; and with the exterior then arranged as the closest possible inclosure of the interior and appropriately fitted to the site. Three feet below grade, the first level includes laundry, furnace, and recreation rooms; the second, one foot above grade, the kitchen, hall, living- and dining-rooms. On the third level are small study, guest room and bath; and above are owner's bedroom, bath, dressing alcove, and a finished sleeping porch. Architect: Charles F. Pope; Owner: Mr. A. C. Beckman, Park Ridge, Illinois.

First Floor

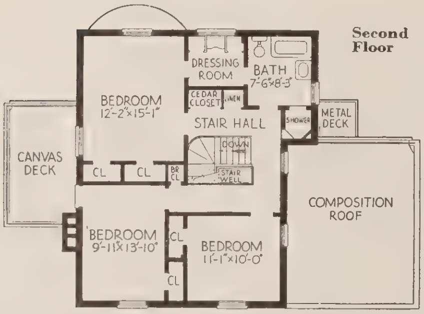


Second Floor

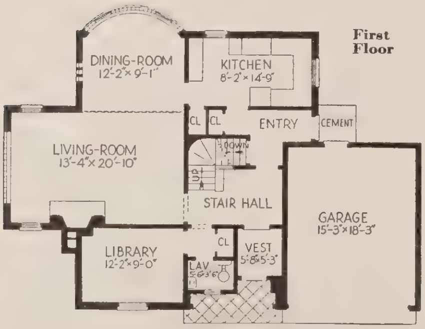


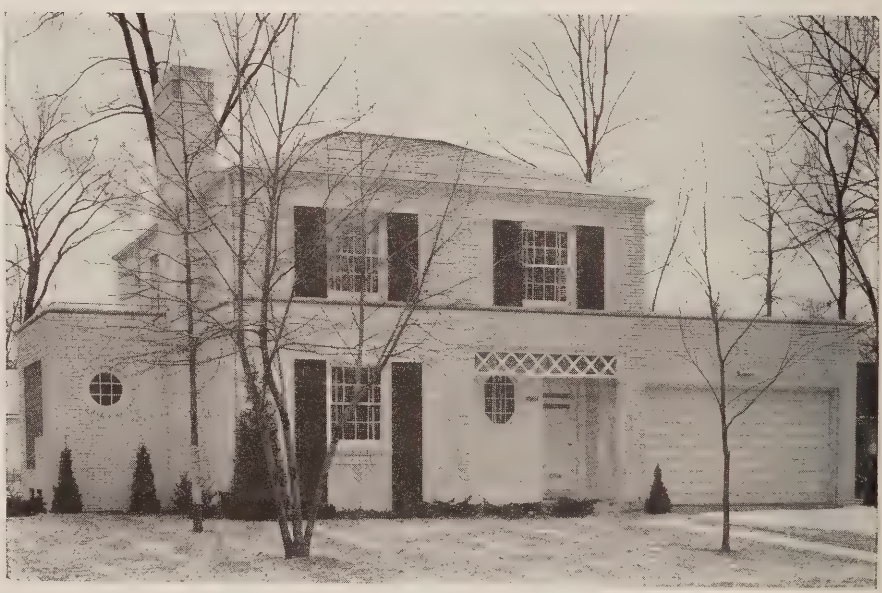
Georgian-Regency Modern

Second Floor



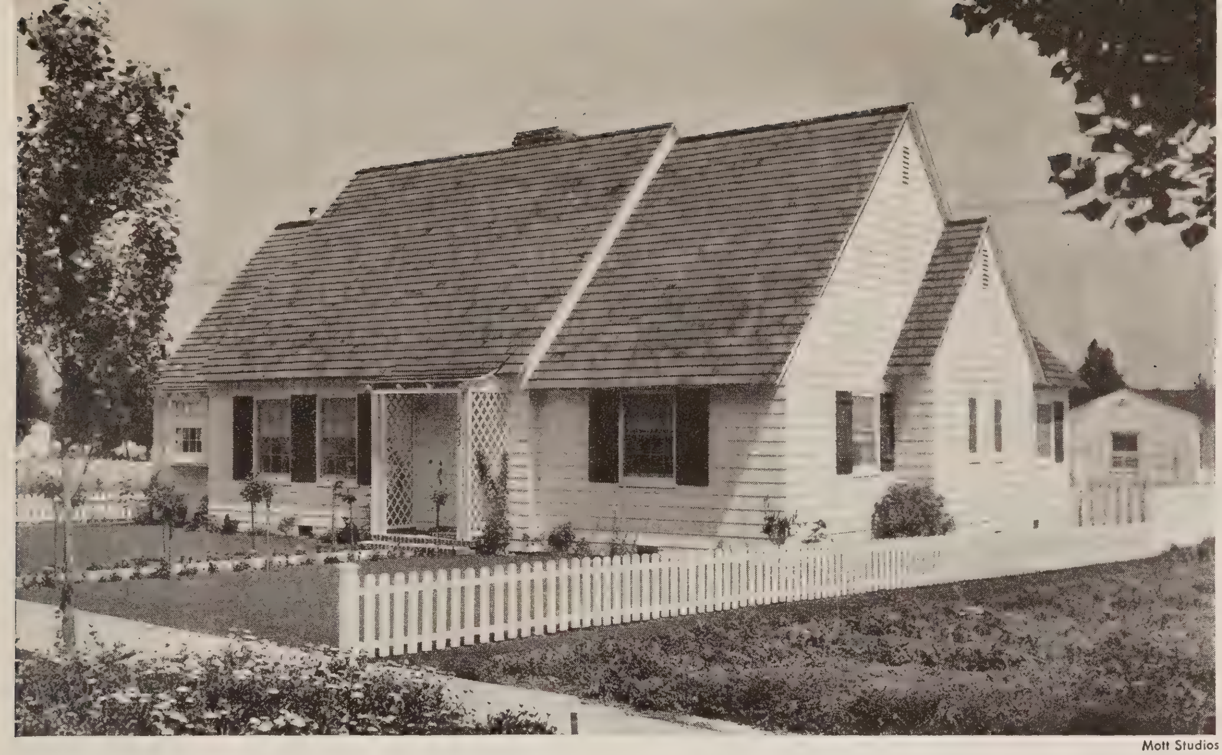
First Floor



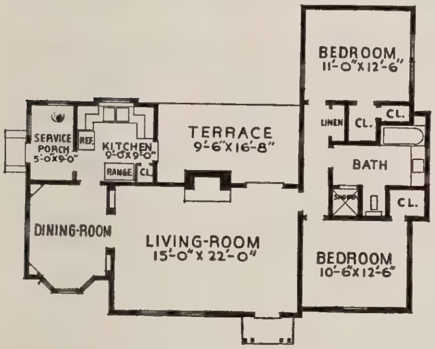


Manning Bros.

THIS HOME, designed and built by Architect Earl L. Confer for the Wiley D. Sandersons of Detroit, conforms to others in its community even tho both exterior and interior treatment are Modern. Under cover from service hall to garage, it's possible to reach the kitchen or reception hall without traversing any other room. Light-ivory brick veneer was used with loose fill insulation on side walls and second-floor ceiling. Shutters are deep blue-black, and roof is covered with blue-black asphalt shingles. Windows are double-glazed for winter protection. Fireplace has white and black marble facing with chrome trim, and hearth of a solid slab of white marble. Kitchen, powder room, and bathroom walls are covered with a bright, tile-like material and accented with horizontal chrome strips. In the basement are a modern laundry, heating plant, and recreation rooms; and a photographic dark-room.



Mott Studios

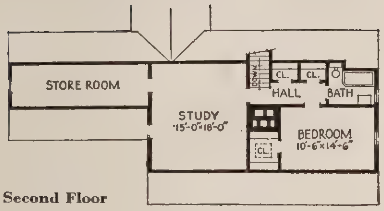


Homey Beauty, Modern Efficiency

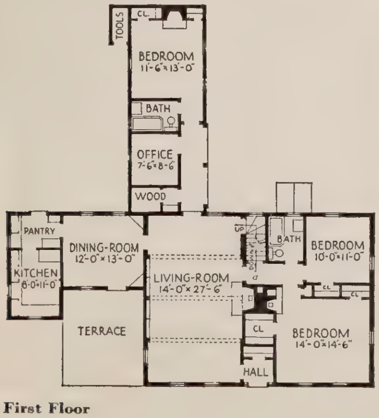
HERE'S PROOF that the little home can appeal to the eye and satisfy the demands of efficient, modern living. This Cape Cod cottage of Mr. and Mrs. Paul Power, North Hollywood, California, was designed by Architect Leo Bachman and built by William Mellenthin. Three sections embrace: in the middle, the living-room; at right, two bedrooms and bath; at left, kitchen and dining-room. The brown roof of split shakes and the decorative frieze below eaves round gracefully into the front-door hood. Paneled front door, latticework entrance, brass hardware, and solid-panel green shutters give a casual, becoming grace. The pine-paneled kitchen opens directly onto a roofed, brick terrace, its whitewashed chimney wall and windows hung with ledges for potted plants. The living-room antique white walls contrast with dark beams. Fireplace is set in knotty pine. Dining-room is enlarged by a bay window.

It Has an Office Wing

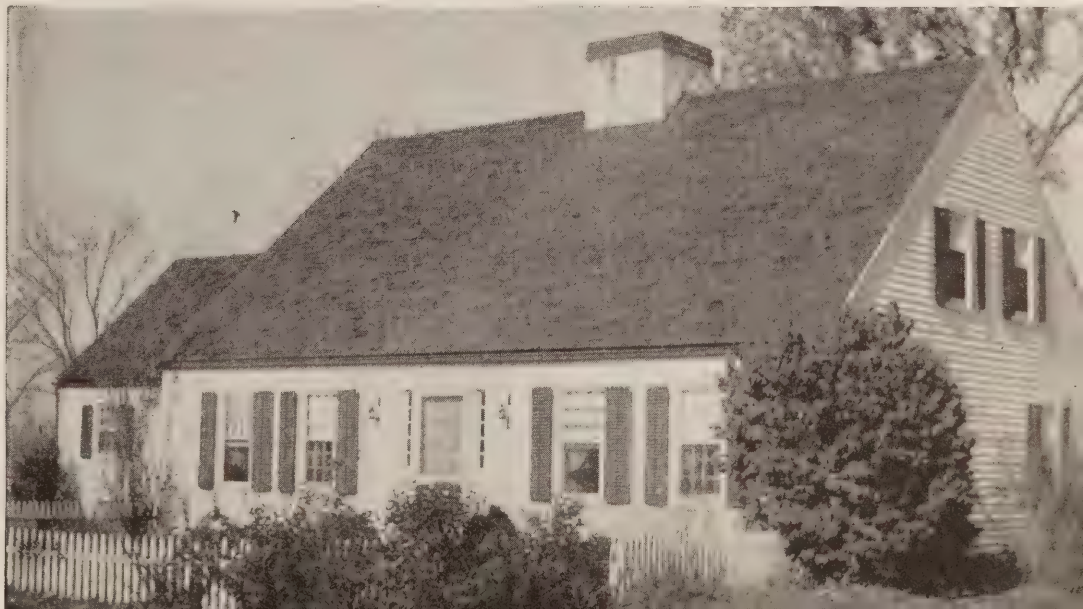
PLANNED WITH a large, beam-ceilinged living-room, three complete bathrooms, and four bedrooms, this house is arranged and equipped to serve the double purpose of sheltering both home and business activities in a very attractive manner. Much larger than it appears from the front, it has a first-floor wing at right angles to the main portion of the house, as you will note on referring to the plans. In this wing an office is provided with a private entrance thru a small recessed porch so that any business may be carried on without confusion or interference with the usual activities of the home. And the bedroom and bath in this wing form an independent unit. Upstairs is a study of ample size. This specially designed home was created for Earl Mead Smith, of Westchester County, New York, by Architect Carina Eaglesfield Mortimer.

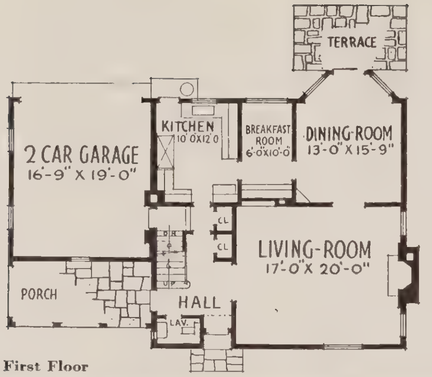


Second Floor



First Floor





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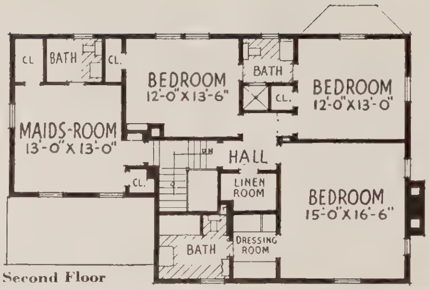
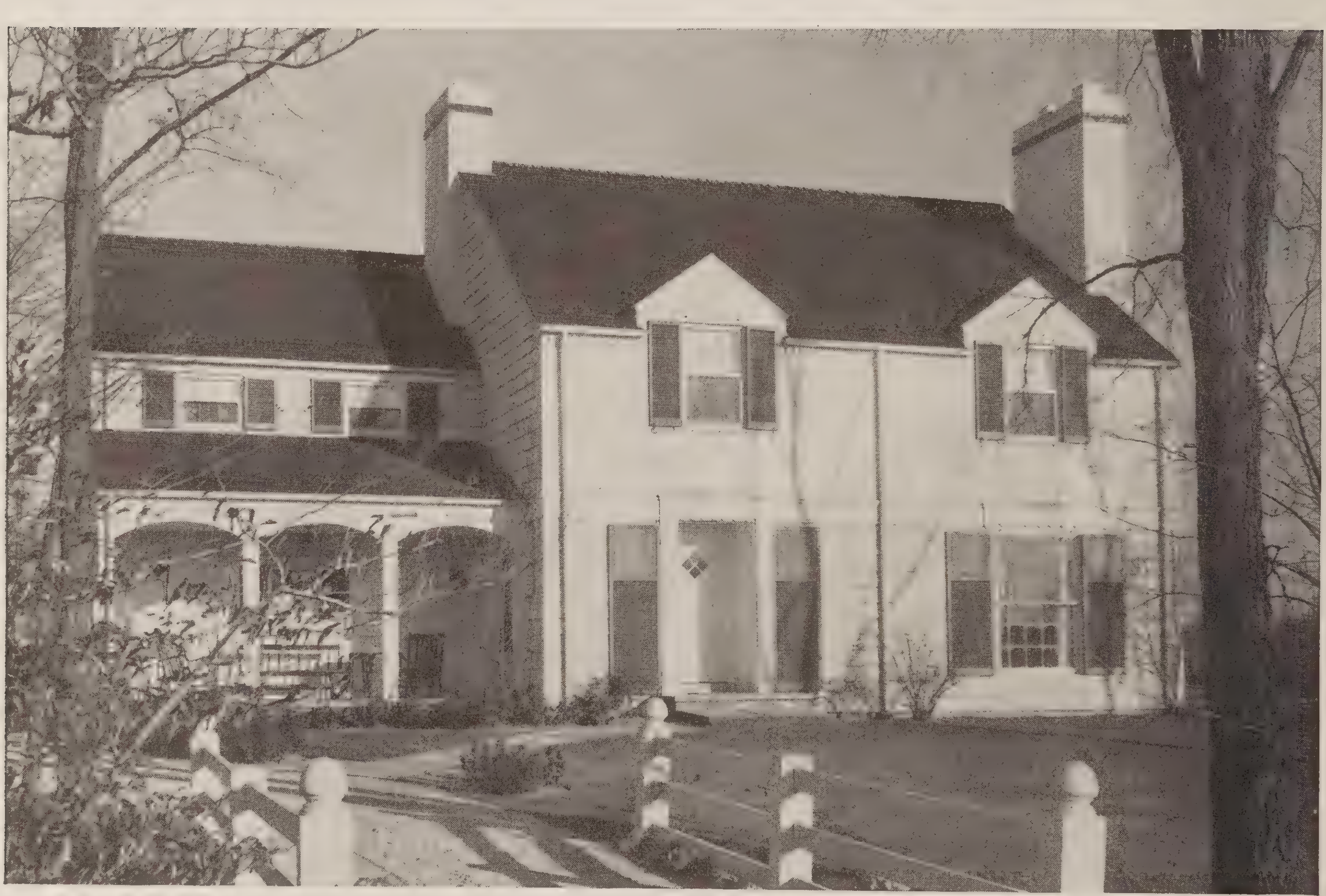


Second Floor

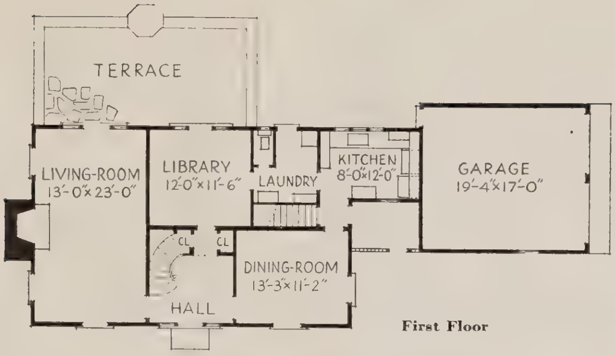


Carl F. Waite

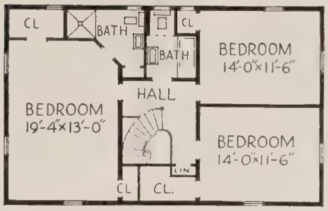
Attached Garage Is Hidden

HERE YOU SEE an Early American home designed for Mr. and Mrs. William Linn, of Shaker Heights, residential suburb of Cleveland, Ohio, by Architect Maxwell A. Norcross, of Cleveland, and built by Olson & Johnston. The exterior of the home is finished with flush siding combined with wood shingles 10 inches to the weather, and all painted white. The recessed front entrance is especially appealing with its diamond window and design, and the wide chimney effectively balances and anchors the design. The roof is of wood shingles. The attached garage is screened by the porch and is accessible from the stair hall opening to the kitchen, basement, and front hall. Another door opens onto the porch from front hall. Arches supporting porch roof are in beautiful proportion.

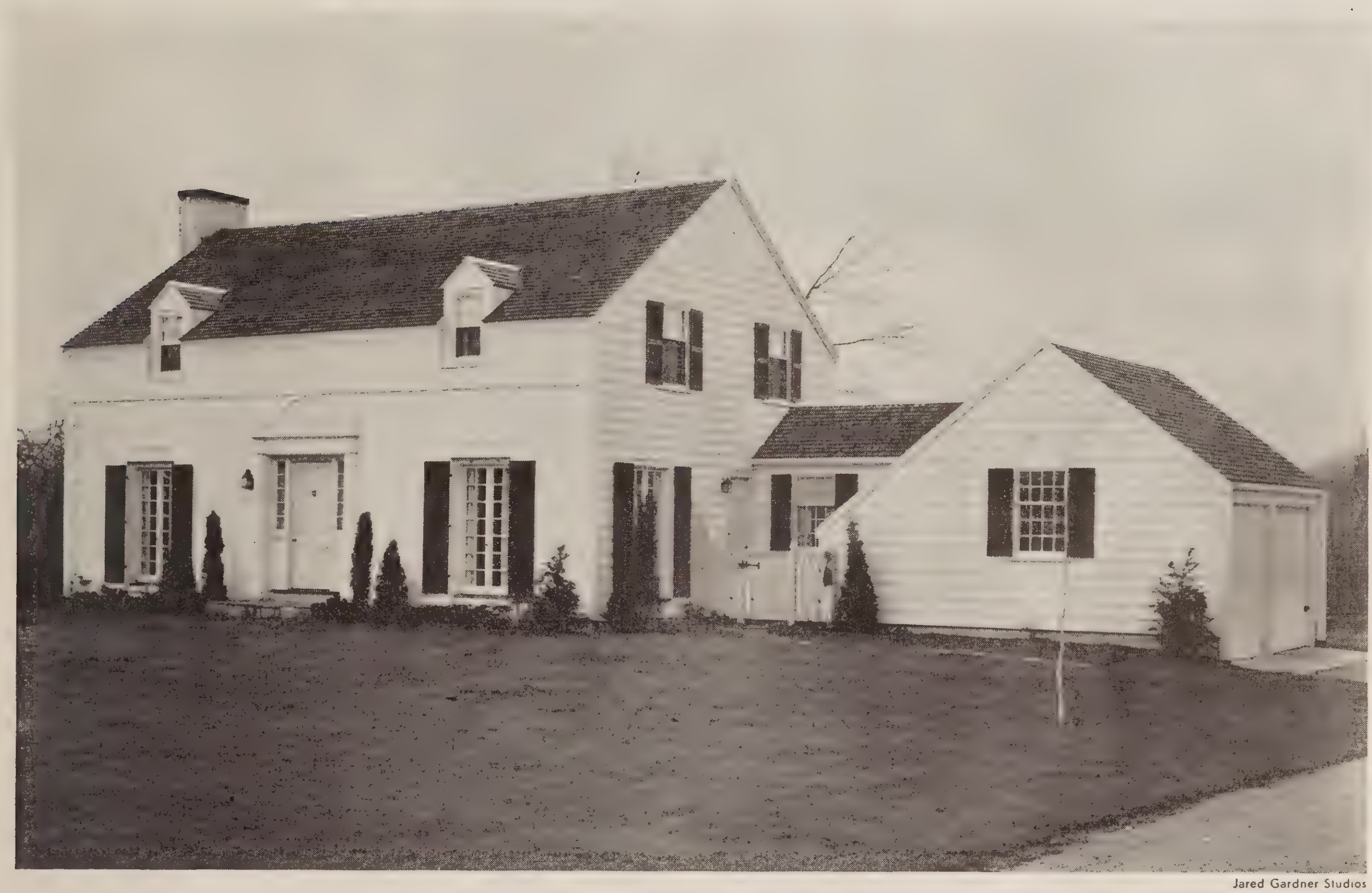
A disappearing stairway built into the second-floor ceiling makes the attic space available for storage. The home is equipped with a winter air-conditioning heating system with an oil burner, and walls and ceiling are insulated with rock-wool. The bay window of the dining-room opens upon the terrace, and this room is efficiently reached from the kitchen thru the breakfast room. Upstairs are two bedrooms connected thru a bath with shower stall, the owner's bedroom with dressing-room and private bath. Over the garage is the maid's room with its own bathroom. The readily accessible downstairs lavatory is efficiently segregated; and coat and linen closets flank each other in hall.



First Floor



Second Floor

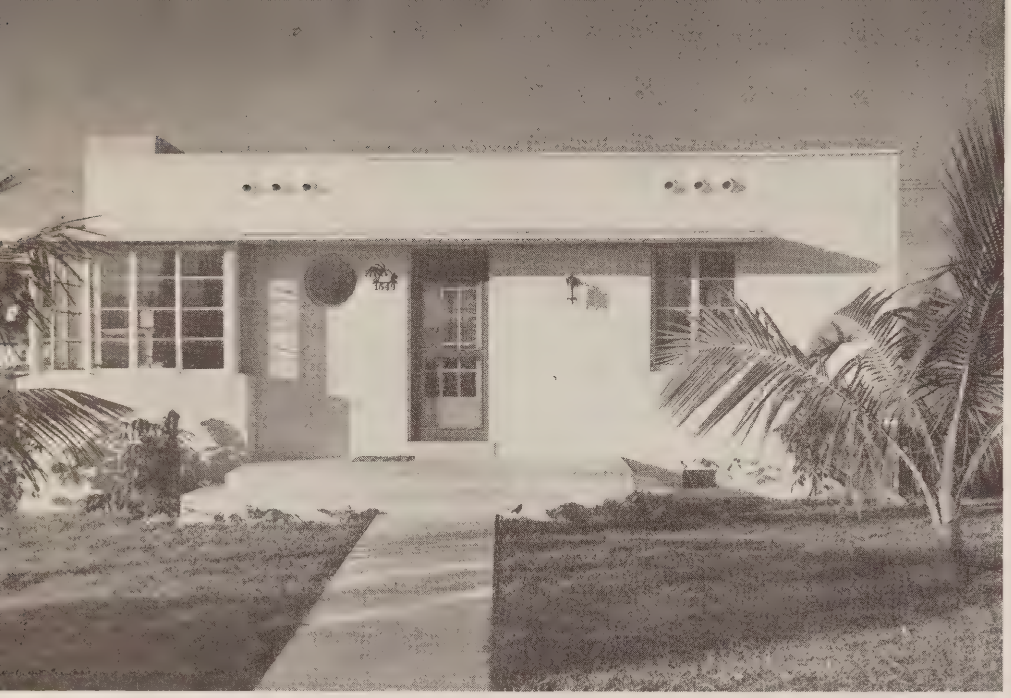


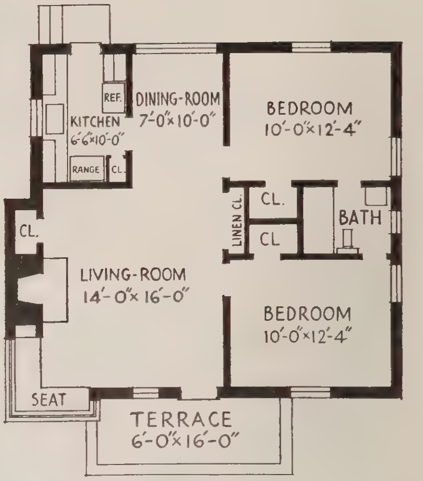
Jared Gardner Studios

White Coat—Black Trim

HERE'S A HOME where father, mother, and two growing daughters may entertain friends comfortably. Architect George R. Paul, of Egypt, Massachusetts, designed it for Mr. and Mrs. Stanley T. Drake, of Abington; Warren D. Vining, of Whitman, built it. The front of the house is brick-faced, and the entire house is painted white. Shutters are black. Roof is natural wood Canadian cedar shingles. Two-car garage is plastered thruout, has overhead doors, casement windows of steel, and storage space above.

Inside, the library is paneled in knotty pine, and bookshelves cover the wall each side of the French doors opening onto the terrace. This end of the room and the terrace offer a lovely vista from the front entrance thru the coat-closet flanked archway. The living-room has a beam across the ceiling and a wide fireplace with an Adam mantel. French doors balance the ends of this room, opening on the terrace at the back, but are used only as windows at the front. The kitchen has well-planned cupboards, with the laundry opening from it. A knotty-pine partition divides the basement for a large playroom with a fireplace. Apart from this room are heater room and Mr. Drake's electrically equipped woodworking room. The owner's bedroom is of good size, it has its own bath, and one of the closets has a window. The deep closet of the front guest room provides storage space for trunks, suitcases, or other occasionally used equipment.





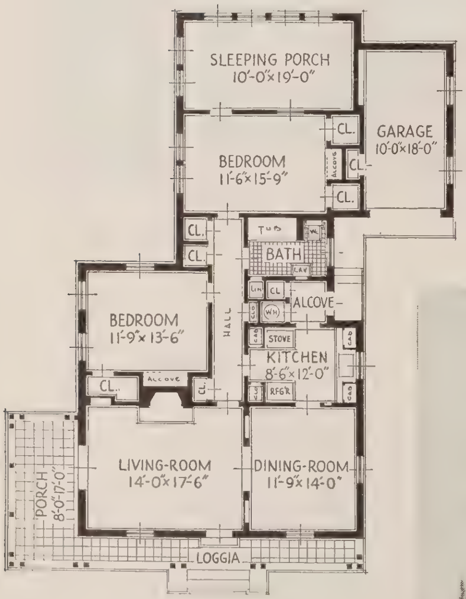
Samuel H. Gottscho

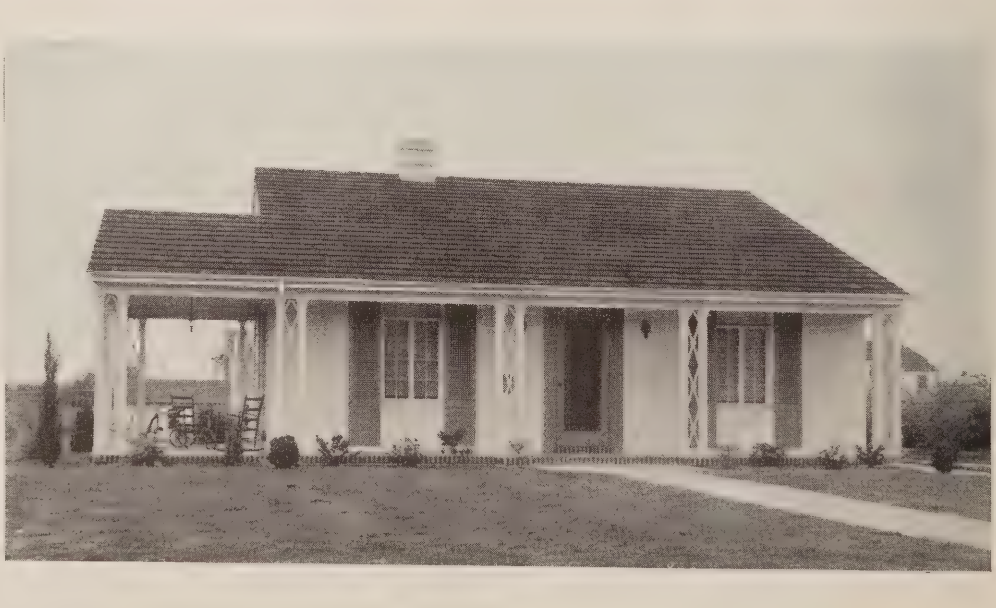
Built for Florida

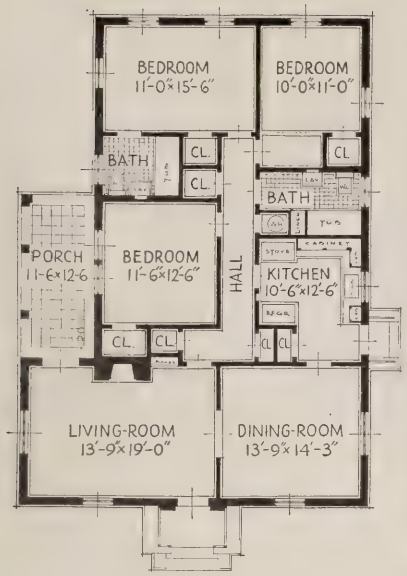
THIS IS a Hollywood, Florida, home designed for Mr. T. R. Raper by Architect Cedric Start, built by Mr. Raper on a narrow, 40-foot lot to take advantage of the prevailing breeze. Almost square, the house is compact, economical to build, and every room has cross-ventilation. The corner window is extended on the front to allow for an east window to secure three exposures at the corner, and the fourth thru the dining-room window. It's quite modern and yet is not coldly forbidding. A window seat follows the lines of the corner window and does not protrude into the room. There's a heat-circulating fireplace in the living-room to provide sufficient heat in cool weather. The kitchen, tho small, is conveniently arranged and has ample cupboard space. Bedrooms are large enough for twin beds and two chests. The bath is tiled. The roof is inexpensive—flat, 4-ply, built up with a gravel surface. The house is hurricane-proof and termite-proof. Outside color is cream, with chimney, overhang, and trim in light green.

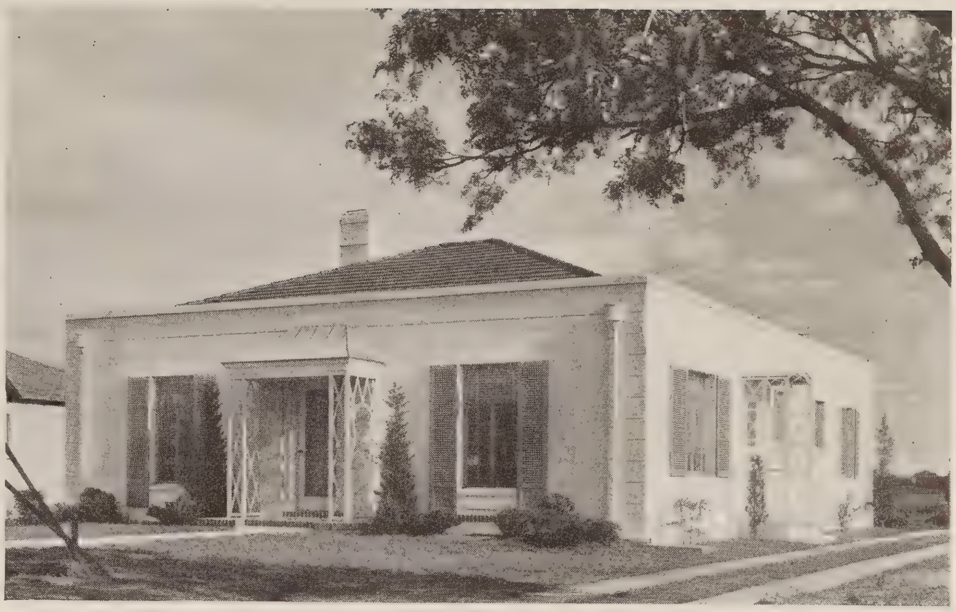
White Walls – Red-Brown Roof

THIS ATTRACTIVE home was designed by Atlee B. & Robert M. Ayres, Architects, of San Antonio, Texas, for Mr. H. B. Zachry, and was built by Mr. Zachry in San Antonio. A patented, precast, interlocking concrete unit of the dimensions, 2 feet 1 inch by 8 feet 6 inches, was used for walls and floor slabs. This home faces north and, with the sleeping porch on the south, creates comfortable accommodations for a family of five. It's constructed almost thruout with concrete, and so is practically fireproof. Upkeep will be low, and so will insurance rates. Interior walls are finished with plaster which is lightly tinted, while the floors are of oak blocks set in mastic. The outside walls are white stucco, while the roof offers a delightful contrast of very rich red-brown. The full-length shutters add height and their blue-green coating sets off the windows.







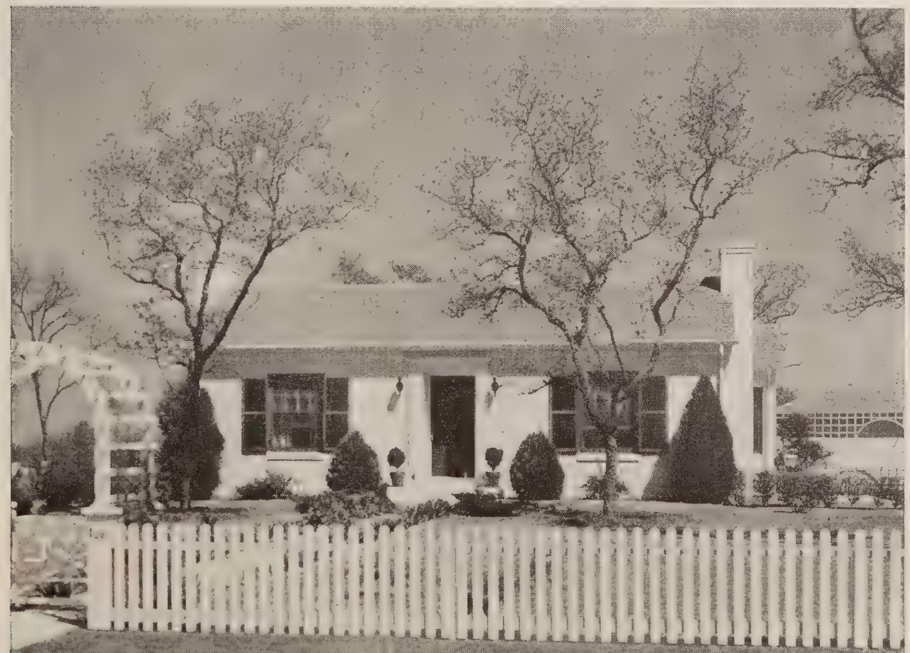


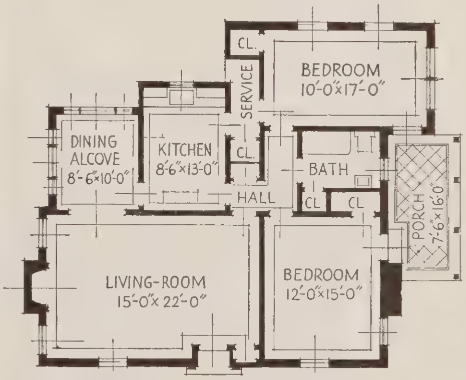
All Concrete – Fireproof

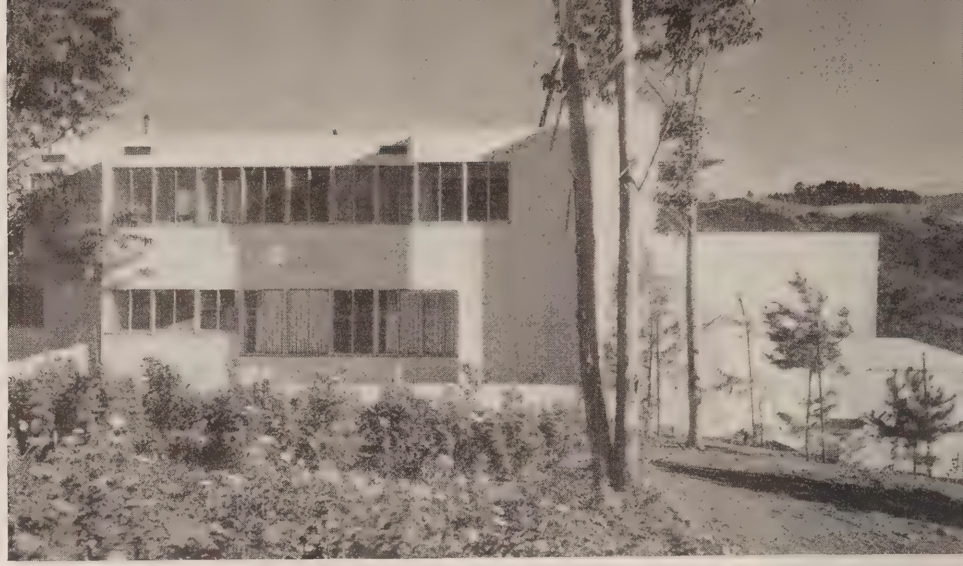
THIS HOUSE was built to accommodate a family of three or four people, and is on a lot neighboring that illustrated at the bottom of page 38. The shutters are painted a light orange-brown, contrasting with the roof of dark steel-blue-gray, and walls are covered with white cement paint. The home is built of patented precast concrete units for walls and floor slabs, and, as with the other home, has floors of oak blocks set in mastic. The home was designed by Atlee B. & Robert M. Ayres, Architects, of San Antonio, Texas, and was built in San Antonio by Mr. H. B. Zachry, at a cost of about $10,000. Its two baths, three bedrooms, kitchen, and living- and dining-rooms are ranged along the hall that divides the home; and examination of the floor plan reveals a plenitude of closets to take care of all needs, both for clothing and linens. The service door opens directly into the kitchen, and from the kitchen there's direct access to the dining-room, and to all other rooms thru the hall which is an effective liaison.

For Southeasterly Breeze

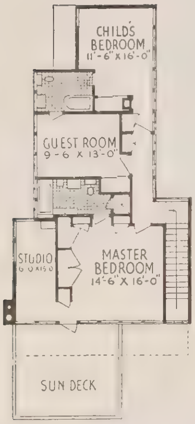
HERE'S A NET solution to the problem of a compact design with a convenient room arrangement which has reduced costs to the minimum and which has placed the bedrooms where they take full advantage of the prevailing southeasterly breeze. The exterior walls are of common brick painted white, the shutters and sash are a very deep blue-green, while the roof is of wood shingles painted brown-black. Interior walls and ceilings have been plastered and tinted an oyster white, while floors of clear oak have been stained walnut. The bathroom floor is tiled. A brief hall effects ready communication between all rooms, providing direct access to the bathroom from both bedrooms and other rooms as well. Just inside the entrance is a coat closet, and in both service and main halls and bathroom are linen closets. The living-room is made cozy by the fireplace at the end, while the dining alcove is open to the out-of-doors with its two outer walls almost entirely of windows. The owner's bedroom has direct access to the porch and the outdoors. Designers: A. B. & R. M. Ayres, Architects, of San Antonio, Texas. Builder: Mr. John Westerhoff.



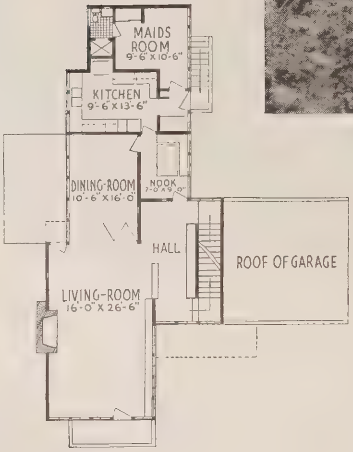




Informal Sociality in Modern



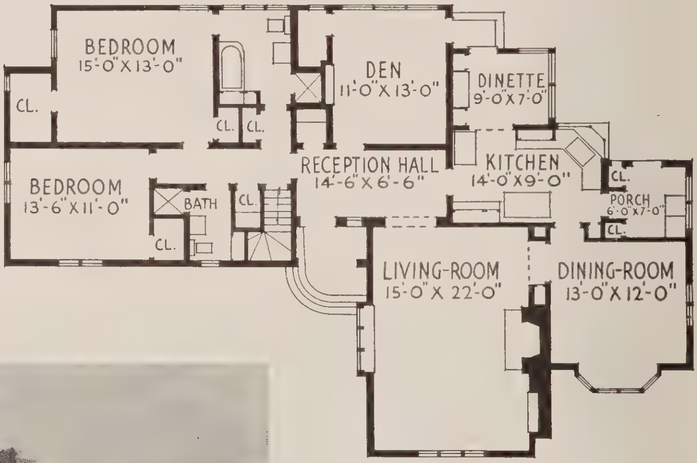
Second Floor



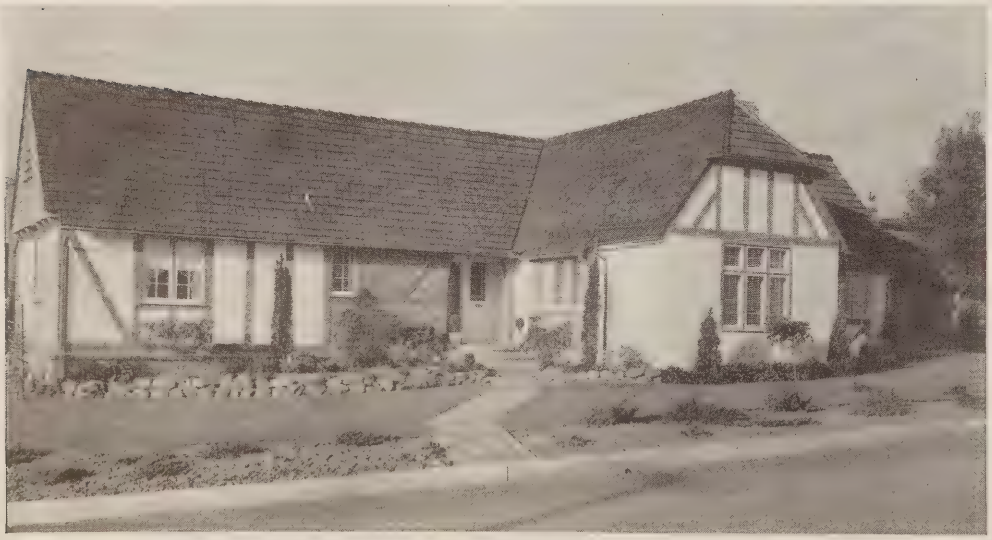
First Floor

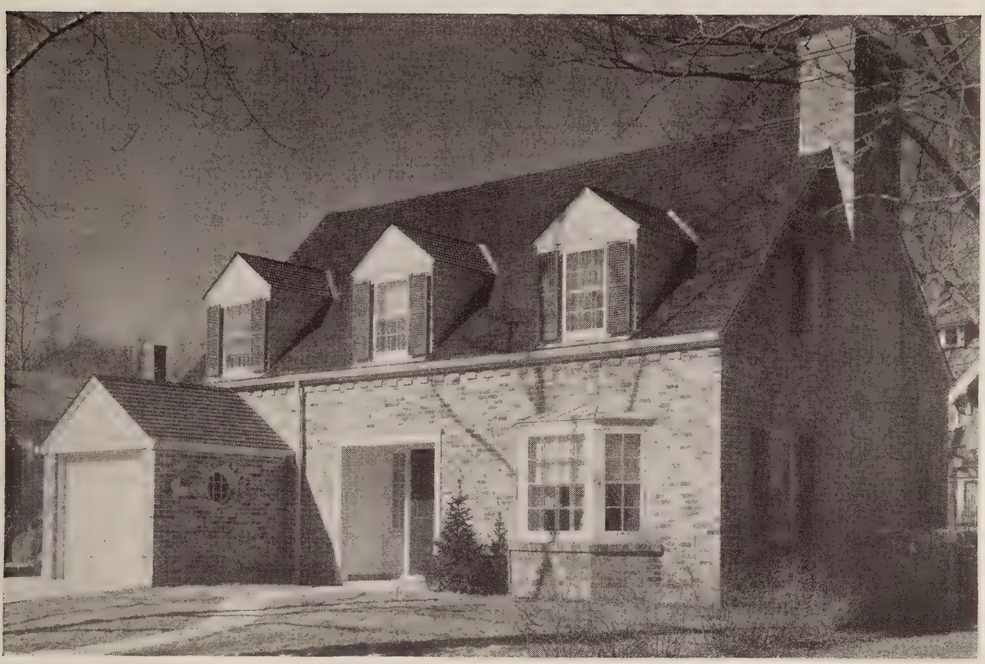
THIS MODERN, hilltop home of Mr. and Mrs. Arthur Hoffman, Hillsborough, California, was designed by Architect Richard J. Neutra, and assistant, Otto Winkler, of San Francisco, and built by J. F. Brown, of Palo Alto. The site slopes off in two directions with magnificent views of San Francisco Bay and wooded hills, and the sections of the home open on different levels. To the left of the entrance under the living-room, the playroom looks thru glass to the patio; and a fresco by the Central American artist, Sotomayer, covers an entire wall. The stairway leads to the living quarters with a balcony on one side, and on the other, the patio and dining bay which may be temporarily closed off. Breakfast room, kitchen, and servant's room and bath complete the floor. Stairs continue upward to connect with owner's rooms and bath. Silver-gray carpet, chromium hardware, and attractive colors feature this home.

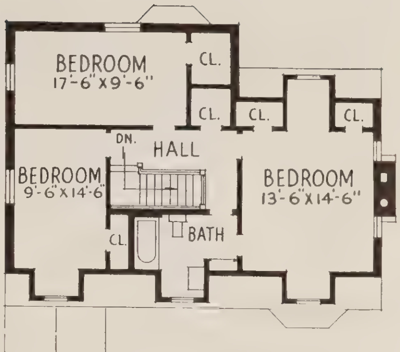
Open to the Sun



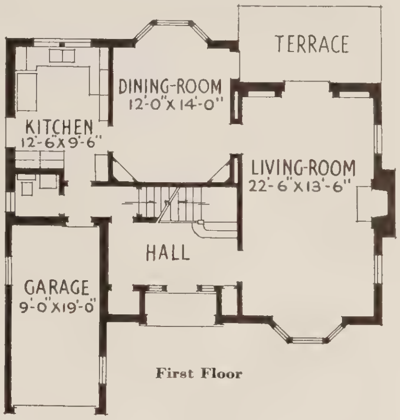
THIS OLD ENGLISH type home, designed for the R. W. Schumackers, of Oakland, California, is oriented to obtain morning sun for the breakfast room and kitchen, and afternoon sun for the living-room. In the breakfast room and the kitchen there are large corner windows that open these rooms to the outdoor vista. In the living-room is a large view-window and also a recessed bay. From the reception hall there's direct access to the living-room, kitchen, den, and bedroom hall; and direct access, too, to the outdoors from the den. There's a built-in bookcase in the fireplace wall of the living-room. Opposite, shuttered doors open to the dining-room. Outside, the roof is of inch-thick cedar shakes, and the walls a combination of stucco, clinker brick, and timberwork. The home was designed by Architect Chester H. Treichel; built by Clarence H. Thrams.







Second Floor



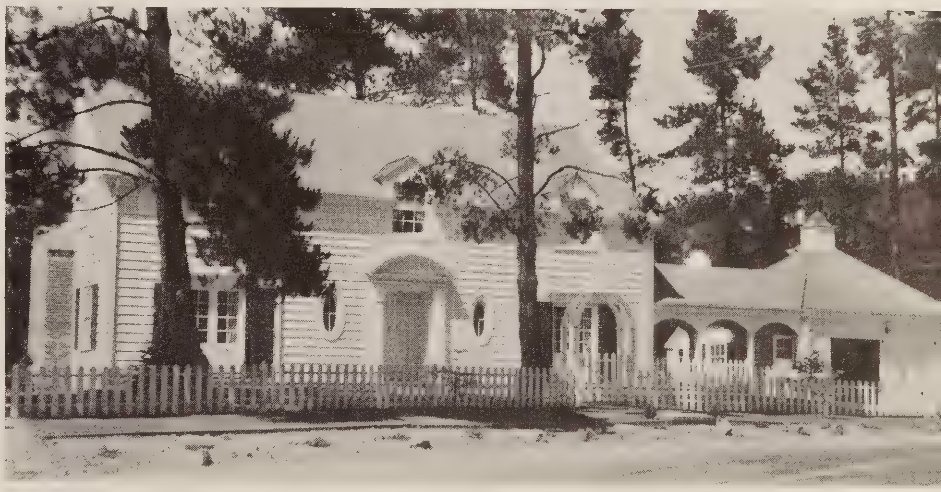
First Floor

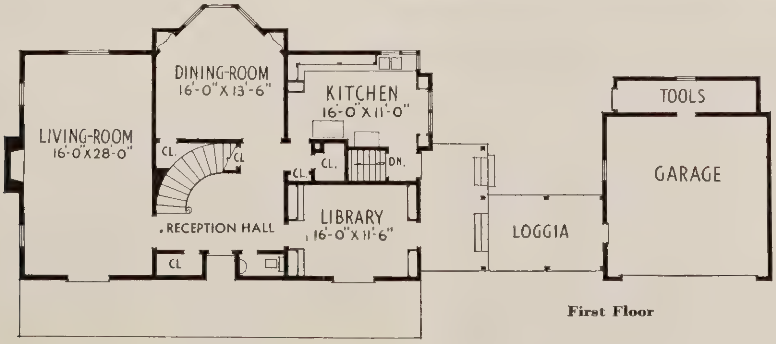
Six Rooms—Complete Livability

HERE YOU SEE a house with complete accessibility among its component parts. There's direct access from kitchen to front hall and from garage to house; and likewise there's free circulation among all rooms. Architect Bertram A. Weber, of White & Weber, Architects, of Chicago, designed this attractive home for a 50-foot lot, and placement of the garage frees the entire rear yard for use and play. Plantings are yet to be completed. For a home so small there's an unusual degree of privacy for the living-room and dining-room. The entrance hall shields the living-room and is floored with red brick, with an old Andrew Jackson print paper on the walls, quite in keeping with the Colonial character of the home. Bathroom walls and floor are linoleum in an attractive color scheme of black marbleized dado and cream walls above. This is the home of Fred C. Stiles, of Evanston, built by the contractor, A. L. Jackson Company, Chicago.

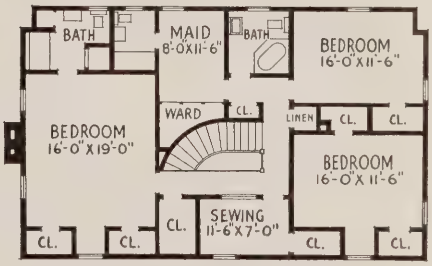
New England Goes West

THIS HOME brings a touch of New England to California. Constructed on a corner lot sloping downward at the rear, it permits a children's basement playroom and laundry facilities. Note the easy accessibility to all rooms on the first floor from the reception hall. The interior design is Colonial thruout, with painted woodwork, painted canvas walls and ceilings. The kitchen cabinets and cases are all of Monel metal. The exterior is of redwood siding painted white, green shutters at the sash doors, and green shingle roof. The home was designed by Architect Chester H. Treichel, of Oakland, California, for Alfred M. Mueller, Oakland.

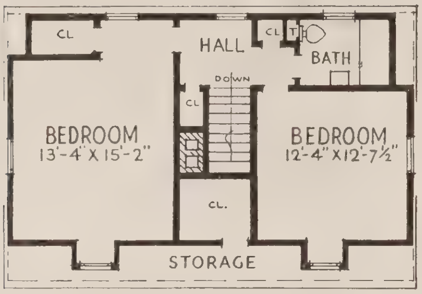




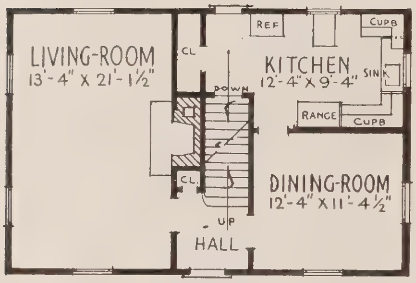
First Floor



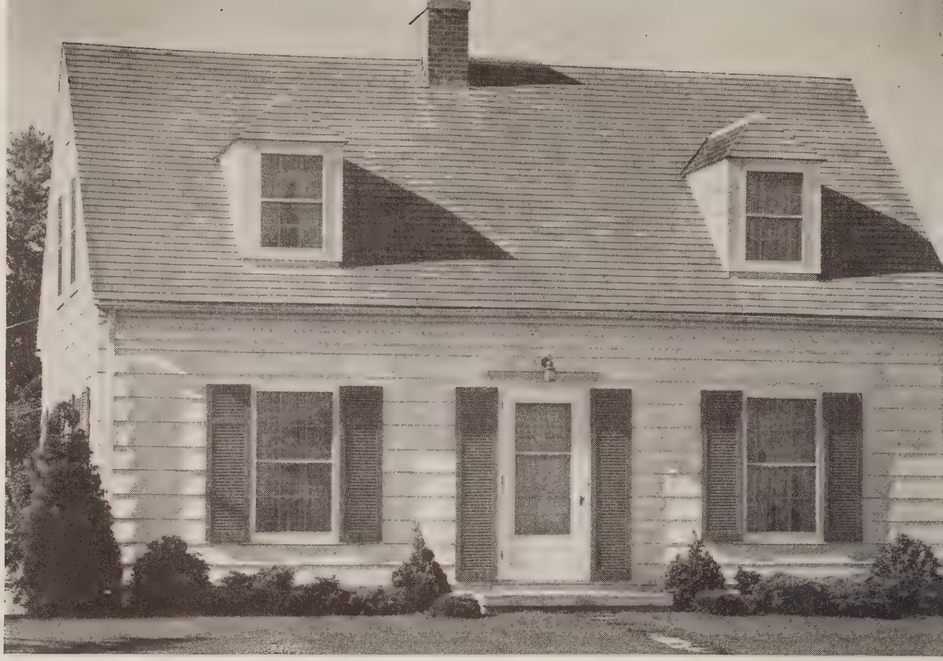
Second Floor



Second Floor



First Floor



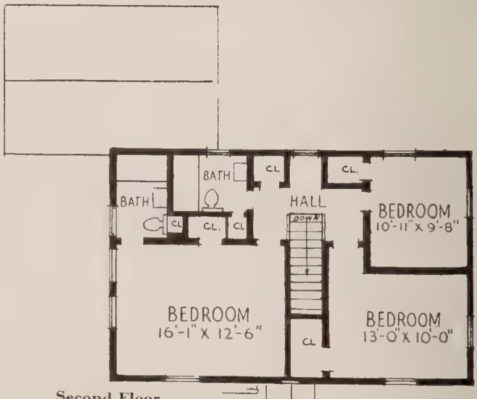
John W. Barry

Neat Beauty and Five Rooms

THE TWO HOMES pictured on this page were designed by Architects Bruce and Kenneth McKay, and built by the McKay Brothers Construction Company, located in Cedar Rapids, Iowa. Mr. Louis E. Jones selected a site on the edge of the city for his home, pictured here, because he was intensely interested in having a garden. Tho there was not a growing thing on the site at the time the home was built, the Joneses planted trees and flowers where fancy and expediency indicated, effectively fitting the home into the scene. Altho built for a small family, and quite compact, the plan of this home allows for rooms of unusually large proportions for a home so small. The hip-roofed dormers and simple entrance give to the exterior a very restful and homelike appearance, enhanced by the decorative detail under the eaves and the shutters at windows and doors. The breakfast space in the kitchen is well placed and, pleasing to the owners, gives a delightful view of the garden.

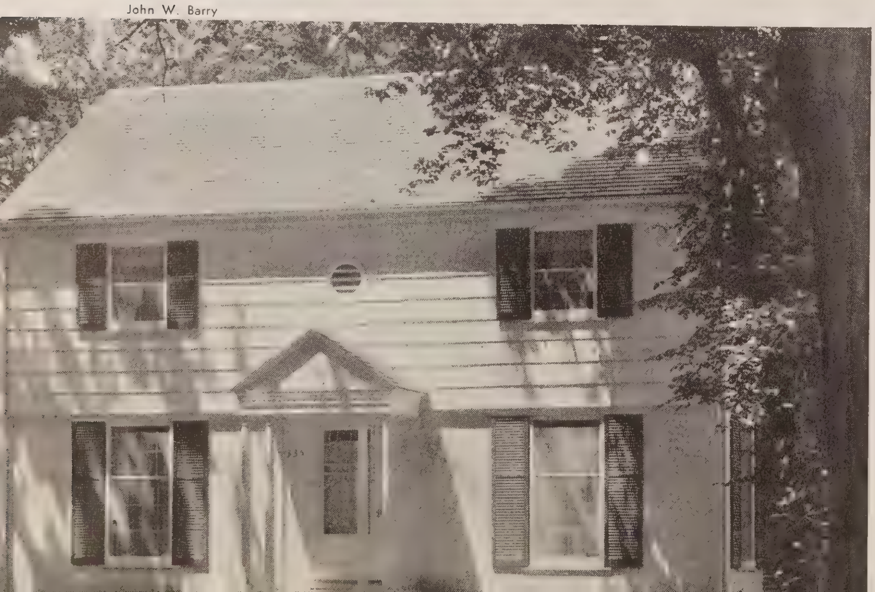
Six Rooms With Two Baths

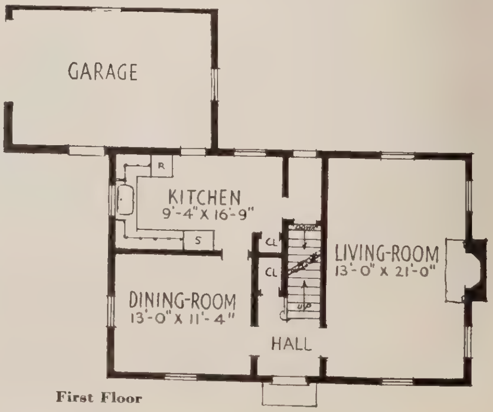
THE BROTHERS McKAY designed and built this home for Miss Sally Stamats, of Cedar Rapids, Iowa. The slight overhang of the second floor at the front, the cornice, and the entrance of the house have a feeling of New Hampshire. And the flush boards on the front of the first floor offer a very pleasing contrast to the upper portion. The house was built next to an alley, so the garage was attached and, as built, adds much to the design. The plan has a minimum of hall space. It's rather unique, incidentally, to have two baths in so small a home. The stoop is an attractive element, its roof supported by four slender columns and with moulding to match that under the eaves. Space is provided at the rear of the living-room for the later addition of a porch for a pleasant recreation spot.



Second Floor

John W. Barry



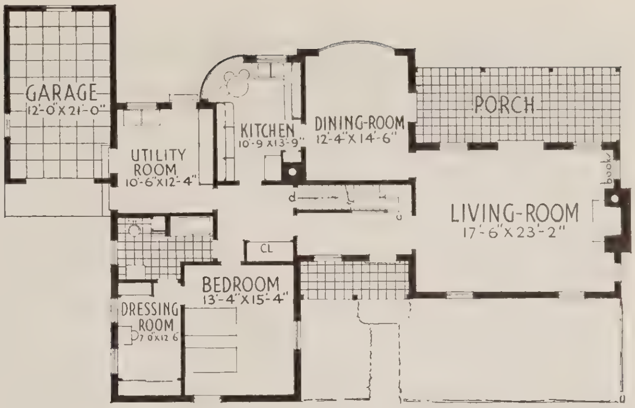


First Floor

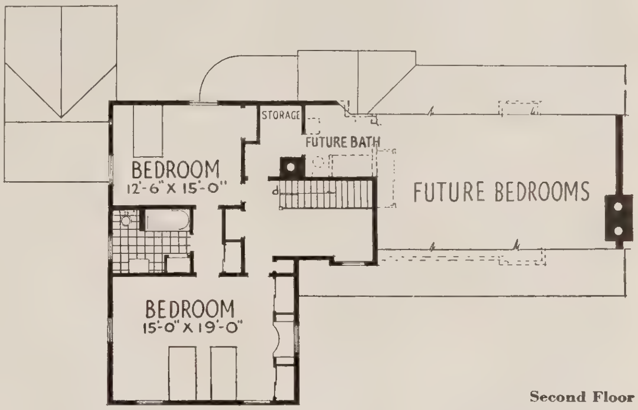
Rambling Colonial – 7 Rooms

A GLANCE at the floor plans indicates that this Colonial-type home was planned especially for a specific family, but for other possibilities allowance has been made for a suite of bedroom-and-bath over the living- and dining-rooms. The owner's suite on the first floor includes a bath that will serve the entire downstairs. There is a coat closet just around the hall-corner from the sheltered front entrance, and from here we pass into the living-room with its fireplace and bookshelves. The dining-room has an immense bay window and in the kitchen we have a circular window to light a breakfast corner, where shelves are handy for serving dishes. Adjoining is the utility room, where we have the laundry, ironing, and mending facilities, and thru which we pass to the attached garage.

Upstairs the two bedrooms are connected with a passageway, making it unnecessary to go into the hall to pass from room to room, or to the bath. Closets aplenty feature these three rooms. The exterior of this attractive home is a combination of wide, beveled siding and common brick laid up in skinteled fashion with weather-struck joints, and all painted white. The roof is of wood shingles stained navy blue, and shutters are the same color. Second-floor overhang, arch-supported porch roof, and eaves carry an interesting shadow across the front of the house that seems to tie the rambling home together as a unit. Harford Field, Inc., architect, designed the home for Mr. Raymond Ruthenberg and family, all of Hinsdale, Illinois, and it was built by A. W. Wendell, of Riverside, Illinois.

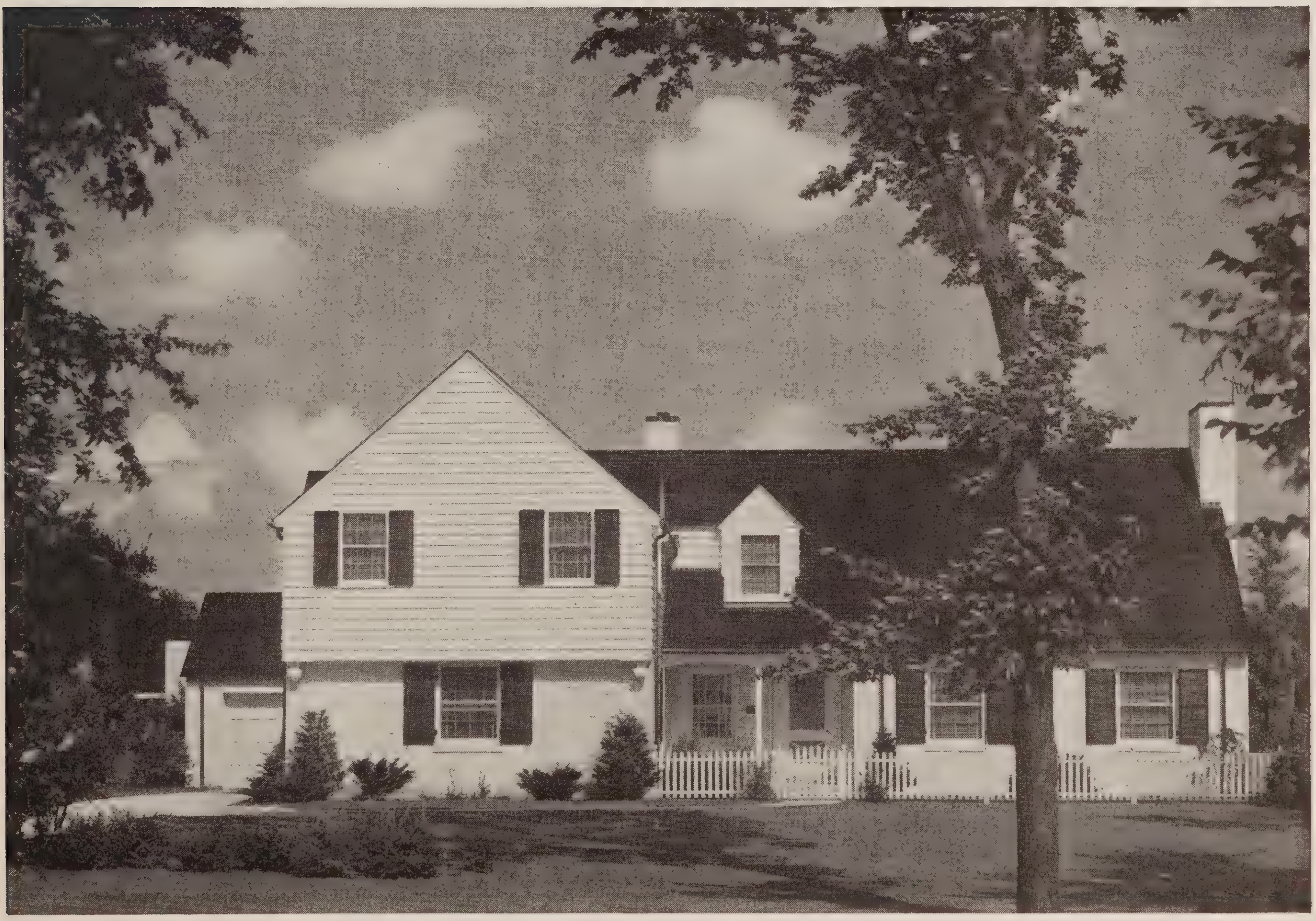


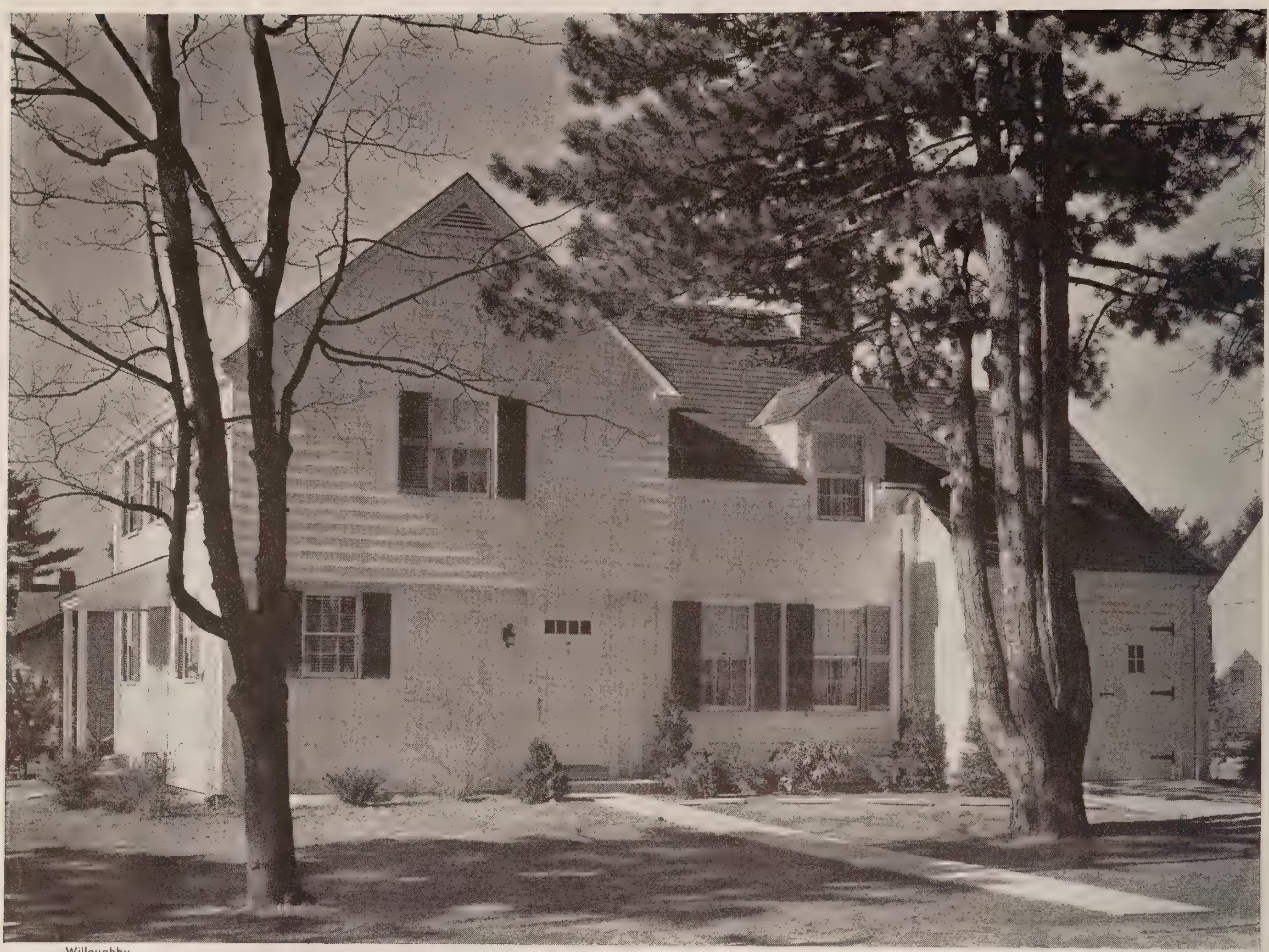
First Floor



Second Floor

R. R. Donnelley



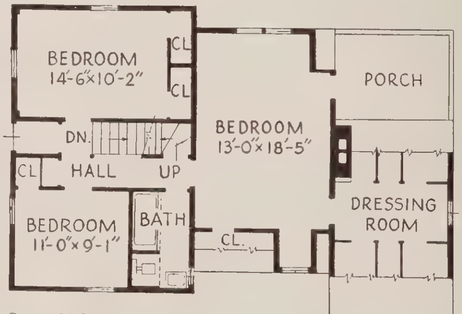


Willoughby

Good Neighbor to Colonial

HERE ARE the features which the owners of this home, Mr. and Mrs. Malcolm Shaw, Lynnfield, Massachusetts, wanted and which the architect, David J. Abrahams, gave them in this design: Colonial to conform to the true Colonial homes of the neighborhood without being strictly Colonial itself; a modern plan with all rooms well oriented; an attached garage included in the sweep of the house roof; a second-story porch for the owner's bedroom; cross-ventilation for all bedrooms. The builder was Willard D. Martin, Inc., of Lynn.

The placing of the stairs well to the rear of the front hall, and the manner of joining the dining- and living-rooms opposite the porch entrance, create the illusion of a house much larger. Salvaged, weathered gray, black, and almost bronze-colored slate covers the roof; exterior walls and doors are white; the chimney, old brick unpainted; and shutters, green. The fireplace end of the living-room is sheathed, and, with the Colonial mantel, cabinet in the dining-room, and the door and window casings, is stained knotty-pine, shellacked and waxed. Floors are oak except for linoleum in the kitchen, rear entry, and lavatory, and tile in the second-story bathroom. The walls of the bath are tiled. Other woodwork in the home is painted ivory, and most of the walls are papered. The well-lighted alcove at the head of the stairs is employed as a cheerful, miniature sewing room.



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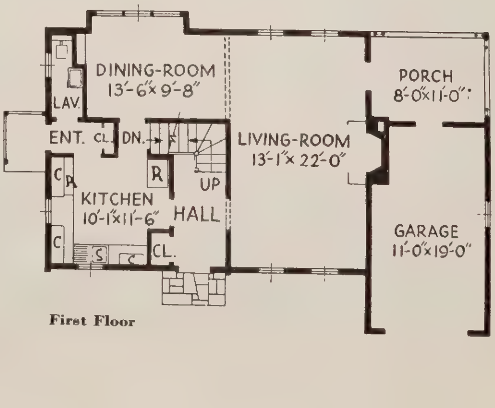

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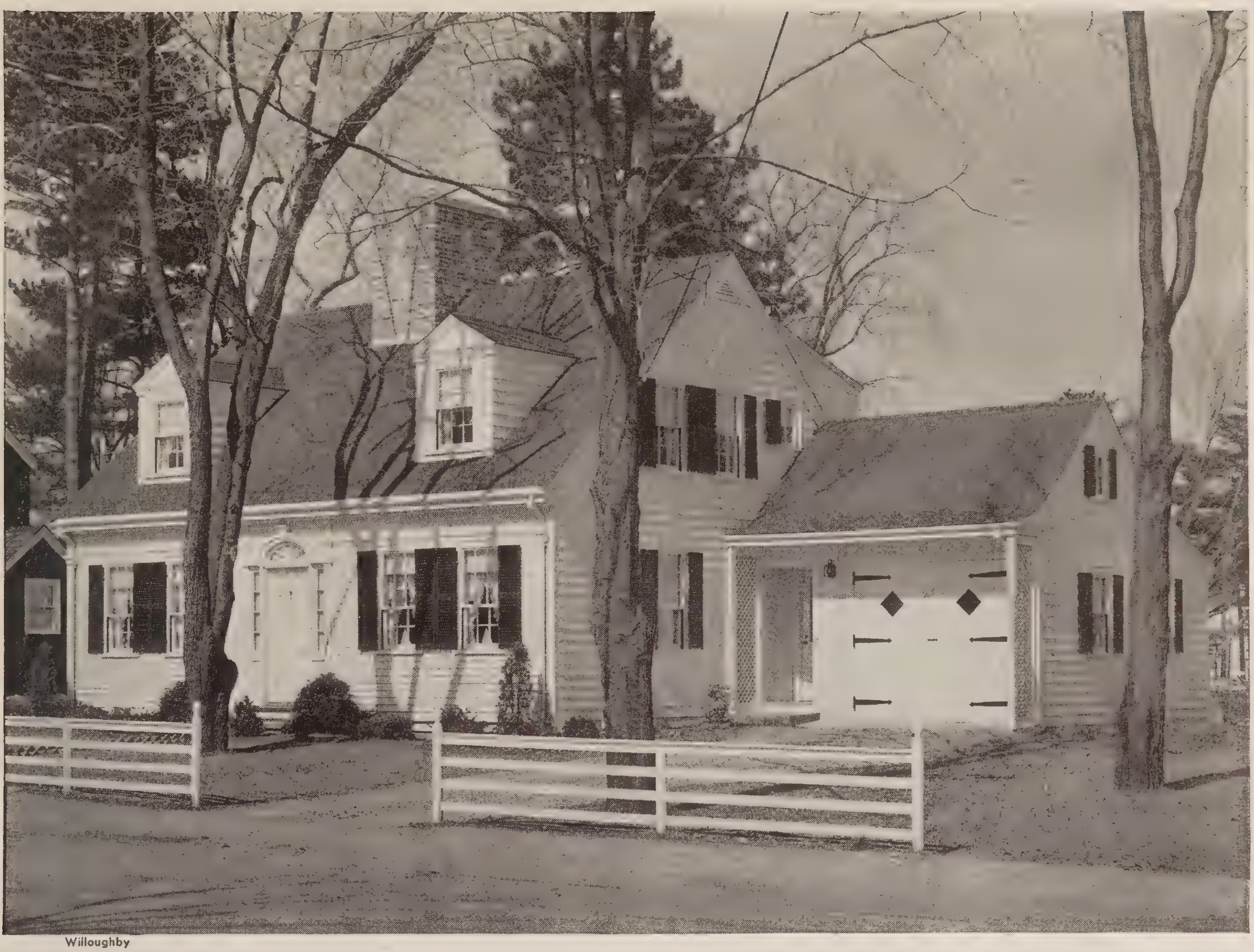
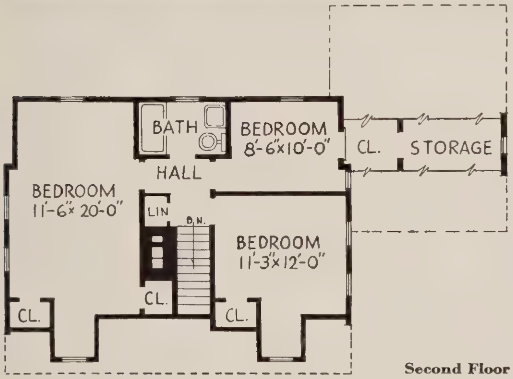


Willoughby



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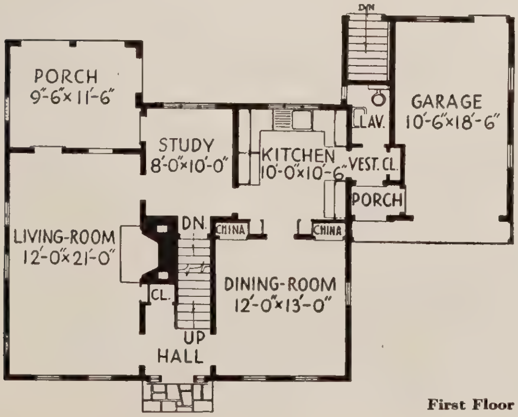
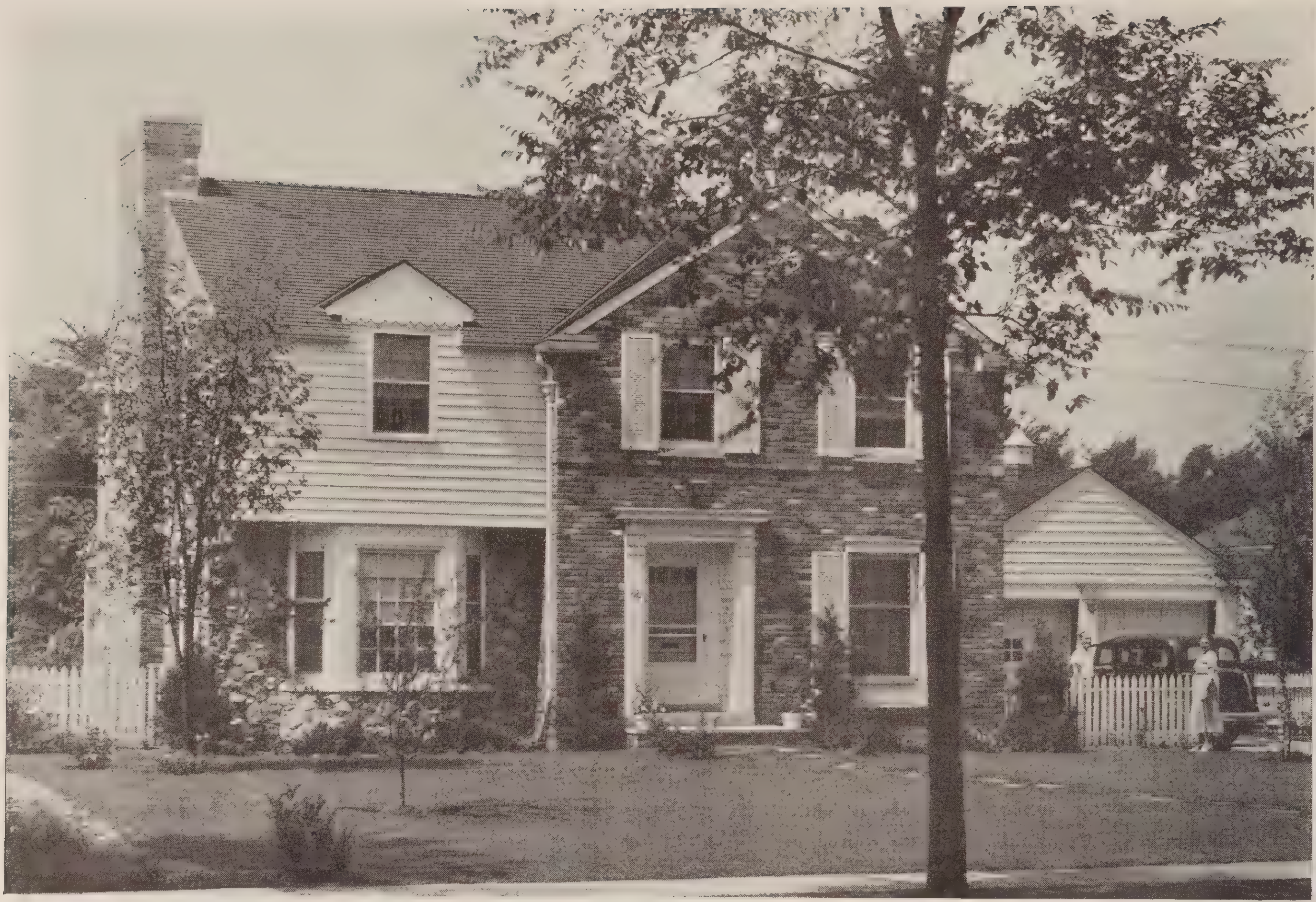


First Floor

7-Room Glorified Cape Cod

IT'S GLORIFIED Cape Cod because the architect, David J. Abrahams, allowed himself great latitude in handling exterior detail. It has dentil cornice, elaborated entrance with fan light and side lights, and fence of refined horizontality. The front wall is of clapboard, but other walls are shingled, and all are painted white. Shutters are dark blue, roof is black asphalt shingles, and the front walk of brick copies original Cape Cod with its basket-weave pattern. Dormers are extra wide and will allow the placing of a desk or dressing table in them in the bedrooms.

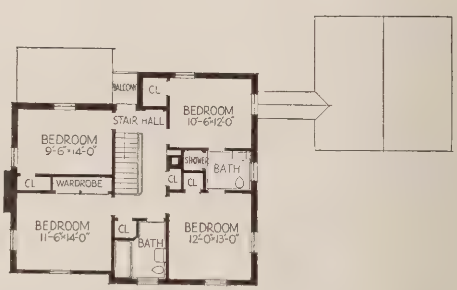
A wide frieze provides extra space in the second-story rooms and permits the graceful fan-light transom over the front door, since it raises the roof-plate over a foot. The study actually ties the living-room to the basement recreation room, which has a large brick-faced fireplace, hewn-beam ceiling, and wood-sheathed walls. With the porch to supplement, this arrangement provides for entertaining large groups in a small home. The kitchen is the efficient U-shape. The fireplace in the wood-paneled wall of the living-room simulates a remodeled Dutch oven, with a wood door to one side of the actual antique-brick-faced fireplace. China cabinets in the dining-room flank the kitchen door with pleasing symmetry, and small cabinets on the kitchen side hide cleaning or other kitchen tools. The home was built for Dr. and Mrs. Donald Gordon of Lynnfield, Massachusetts, by Willard D. Martin, Inc., at a cost of $8,500.



Brick, Stone, and Wood

THE EXTERIOR of this home, of common red brick veneer, split fieldstone, and with wood siding all painted cream white, offers interesting beauty to passers-by. Interior wood trim is of clear white pine and finished with four-coat work of paint and enamel. Heating is by conditioned warm-air oil furnace, and exterior walls and second-floor ceiling are balsam-wool insulated. The two-car garage is frame construction and accessible from the house by a covered walk. The home was designed for the William C. J. Miller family of Grosse Pointe Park, Michigan, by Architect C. F. J. Barnes, of Detroit, and built by Mr. John Weinhardt, of Detroit.

Main entry is thru a deep-set entrance to a vestibule, at the side of which is a large coat closet, and on into the stair hall. All rooms are generous size and have cross-ventilation. The long hall permits an easy stair, lighted at the second-floor landing. The ample-size breakfast room provides free circulation for service and easy access to the dining-room from the well-arranged kitchen, which has an amplitude of counter-work surfaces. Above are four comfortable-size bedrooms, two baths, hall, and plenty of large closets. Flooring is all of red oak except where tiled. The basement contains a large, finished recreation room, a laundry, the heater room, and a special fruit room, all separated by 8-inch masonry walls which act as a very substantial foundation for the floor joists.



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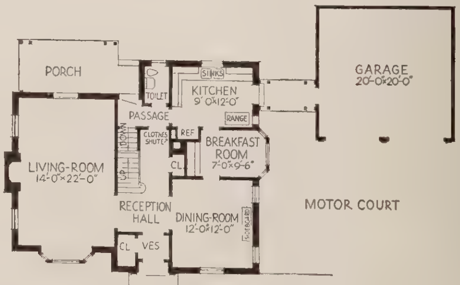
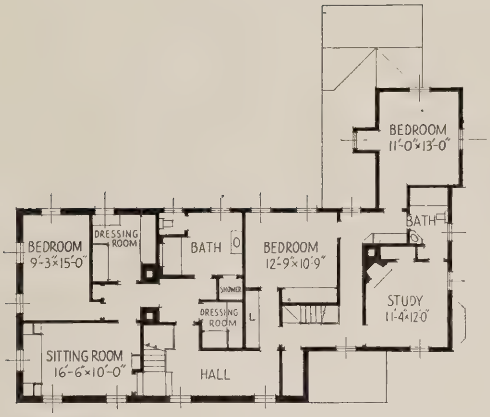
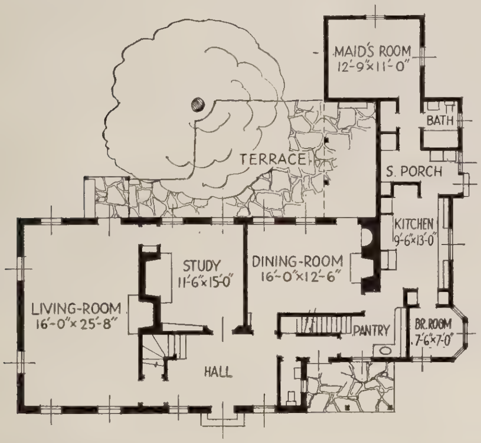


First Floor

Pennsylvania, at Home in California



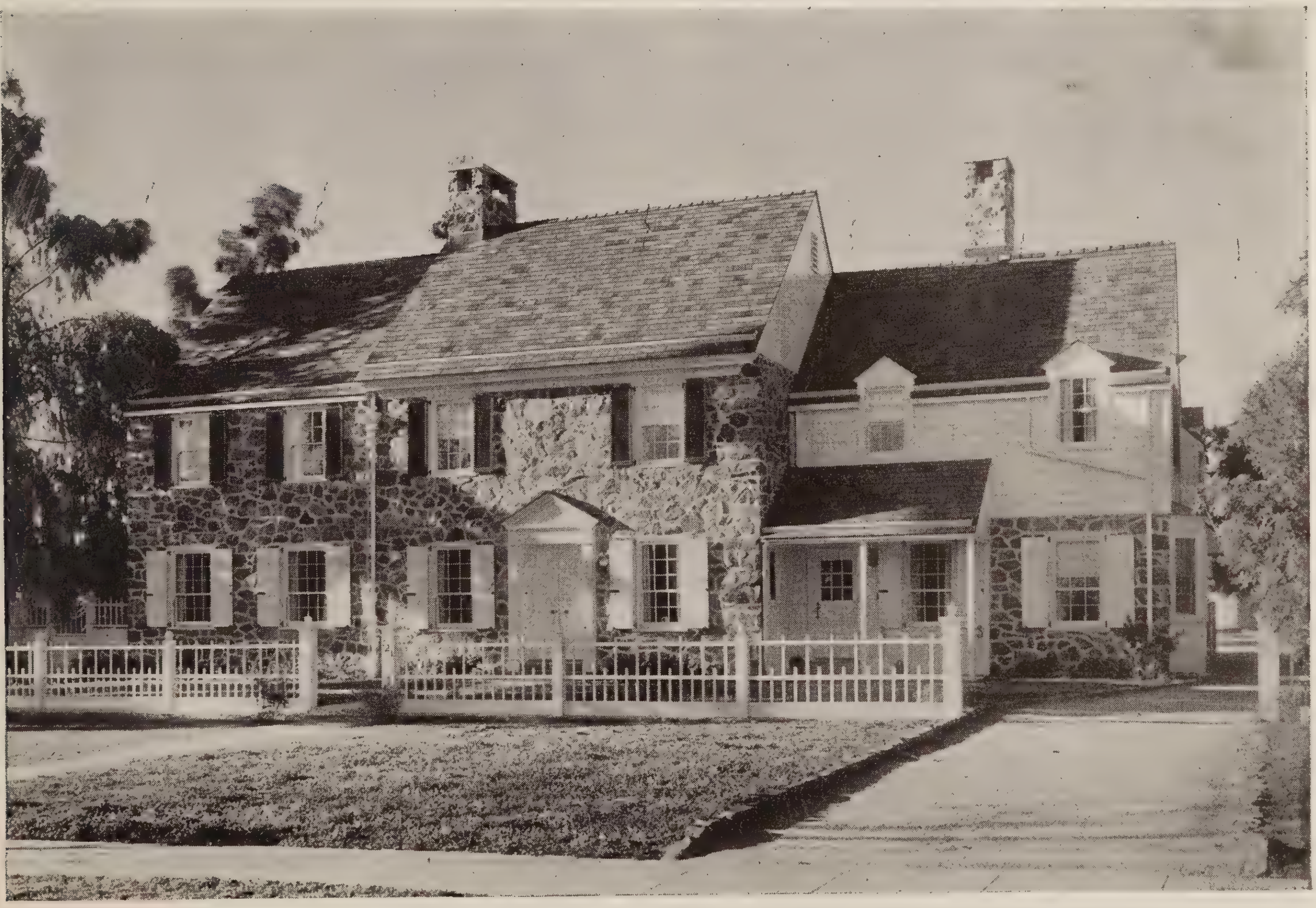
Second Floor



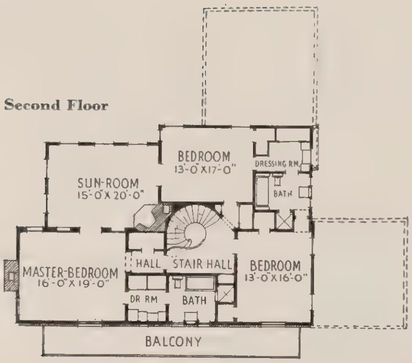
First Floor

THIS IS the attractive home of Dr. and Mrs. Stanley O. Chambers, of Beverly Hills, California; designed by Architect Gerard Colcord. It's of Pennsylvania-farmhouse architecture, acclimated to California. The treatment of the garden, garage-pergola, and outdoor-dining terrace sheltered from the sun, is beautiful. Kitchen and service areas open to the driveway side, screened by shrubbery and separated from the garden by a lattice fence. From the living-room one goes directly to the garden, with a flagged path leading onto the terrace, which has a flower-sink and shelves for bowls and vases for flower arrangements at the end. At the front, grays and tans of the stone are complemented by the soft browns and grays of the shingle roof. The nicely proportioned wing is tied to the main section of the house by the repetition of the gable siding on its upper story. The louvered shutters of the second floor are painted dark green, while the solid panel shutters below offer a contrasting white to create interest and beauty. Truly this soundly constructed home adapts the Colonial tradition to California life in a delightfully pleasing and beautiful manner.

W. P. Woodcock

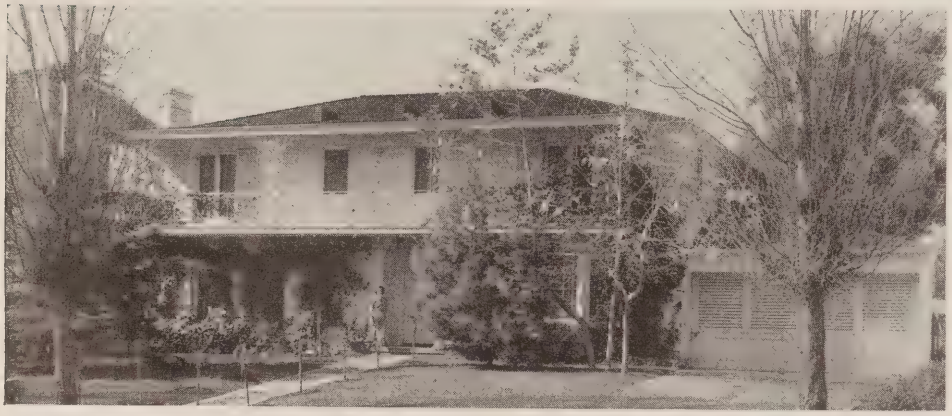


Privacy for the City Home

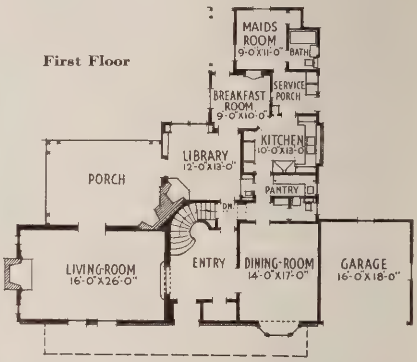


Second Floor

WHAT DOES ONE do for privacy on the city lot? What does one do when neighboring houses crowd to the very lot lines? A hopeless proposition? Indeed not. This house is a practical answer! Architect Allen Ruoff solved these problems in designing this home for Mrs. L. R. Holmes, of Westwood, California. Suggestive of Colonial New Orleans, or of the Monterey of early California, is this white stone house. A wrought-iron railed balcony opens from the second-floor bedrooms. Horizontal white boarding contrasts with the stone. And tht two-car garage has louvered doors. In back are a partially inclosed patio-porch with fireplace for outdoor cooking, a formal rose garden, a grassy lawn thru a gate beyond. The garage on the street makes these gardens possible, and living-room, porch, library, and breakfast room all look out into them. No windows of any consequence open at the sides into the next-door houses, so there's a maximum of privacy for Mrs. Holmes and the neighbors.



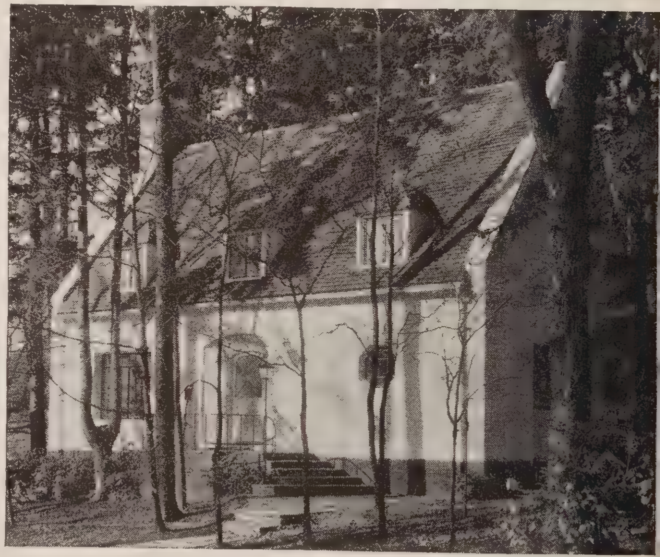
First Floor

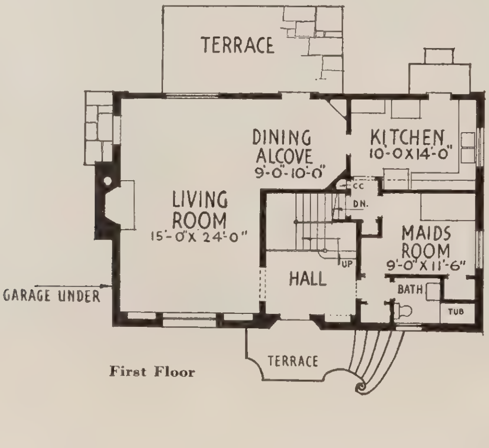


That French Feeling

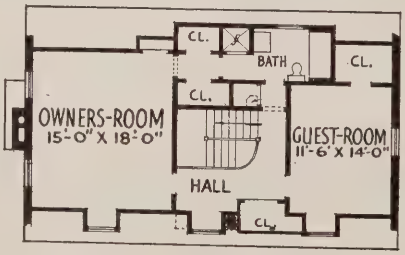
THIS HOUSE has a feeling of French sturdiness, for altho of frame construction with brick-veneer finish, the walls have an appearance of solid masonry thickness in the deep reveals of the large living-room window and entrance door. This is accomplished by furring the wall on the inside and using the spaces by the windows for arched, recessed bookshelves and in the hall for recessing the telephone desk.

The entrance door has wrought-iron crossed arrows painted white applied outside the large upper glass panel. The steep-pitched roof is covered with handmade tiles in soft brownish reds, with masonry embracing the gable ends. Brick walls are whitewashed over a base painted dark. There are no wood cornices at the eaves, but the copper gutter is carried on a projecting brick fascia supported by corbeled brick brackets. This home, built by A. Barbaresi & Sons, Inc., of Mt. Vernon, New York, was designed by Architect Verna Cook Salomonsky, of New York, for Dr. Herman F. Prange, of Scarsdale, New York, and nestles into the woods.





First Floor



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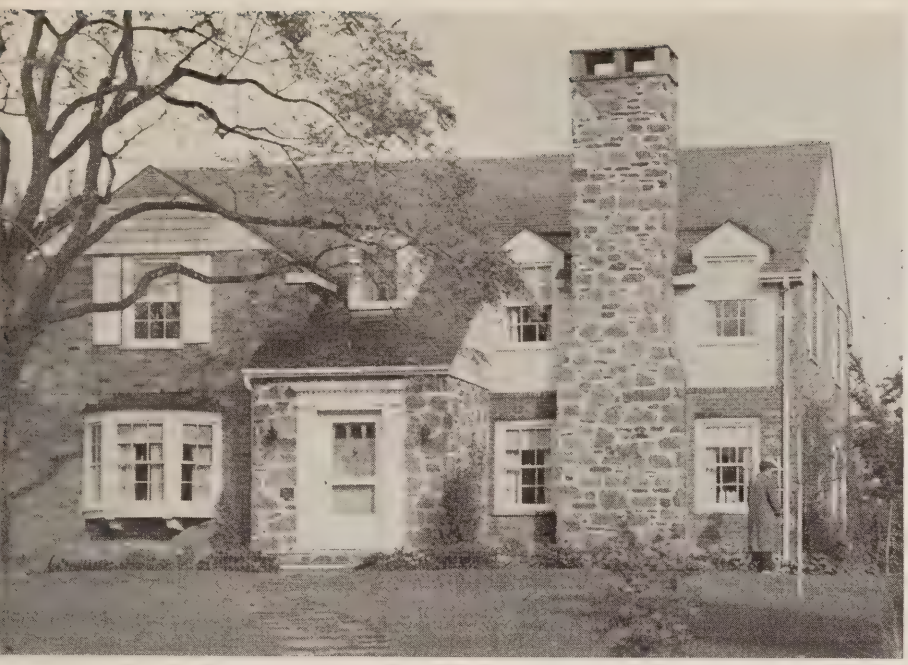

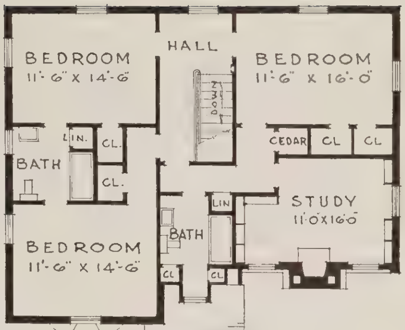

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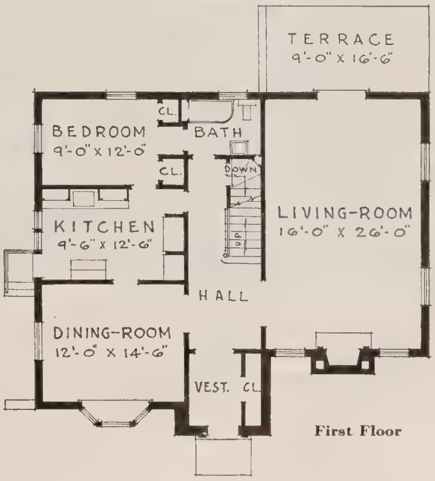
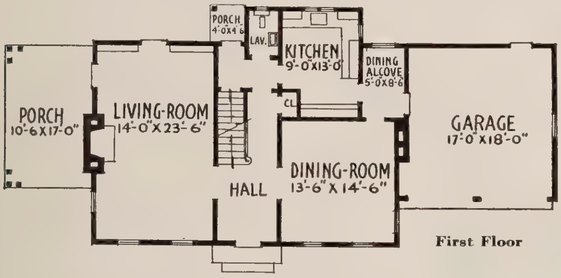


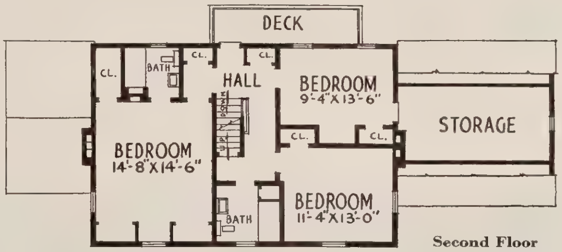
First Floor

Beautifully Compact

THO TAKING FULL advantage of the rolling site, this home of Walter A. Reichart, assistant professor of German, University of Michigan, is a compact and attractive home. Rooms on the first floor are generous in size, with a bedroom and bath included for convenience. The living-room is papered in old Colonial patterns, with wood trim enameled, and with a fine view across the terrace of hills and valleys. The second-floor study is interesting with its fireplace, beamed ceiling, and knotty-pine walls; and it has spacious bookshelves. Entrance vestibule and chimney are of Baltimore stone; paneled shutters are white; and the roof is of gray slate. The home was designed by Architect Harold H. Ehlert, and was built by Mr. Sylvester J. Christie in Ann Arbor, Mich.



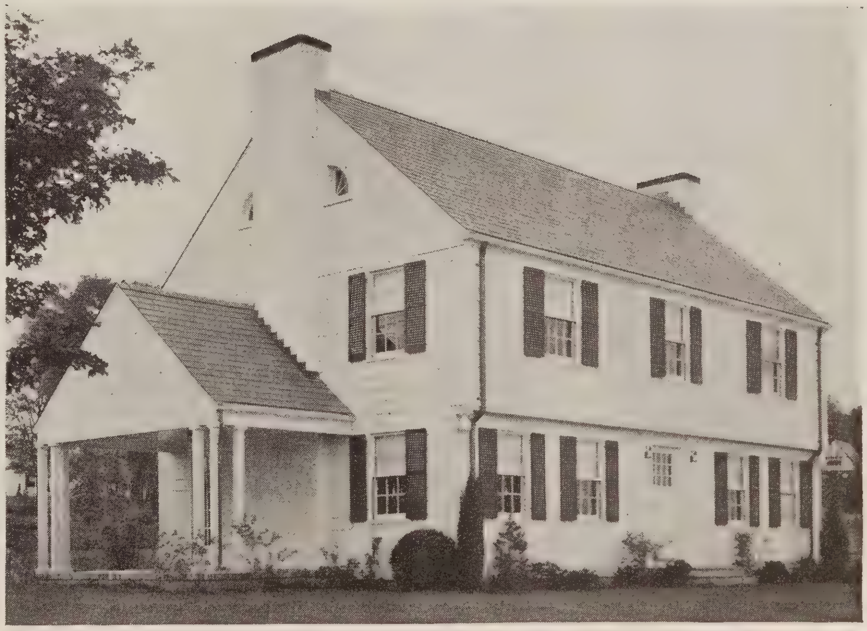
First Floor

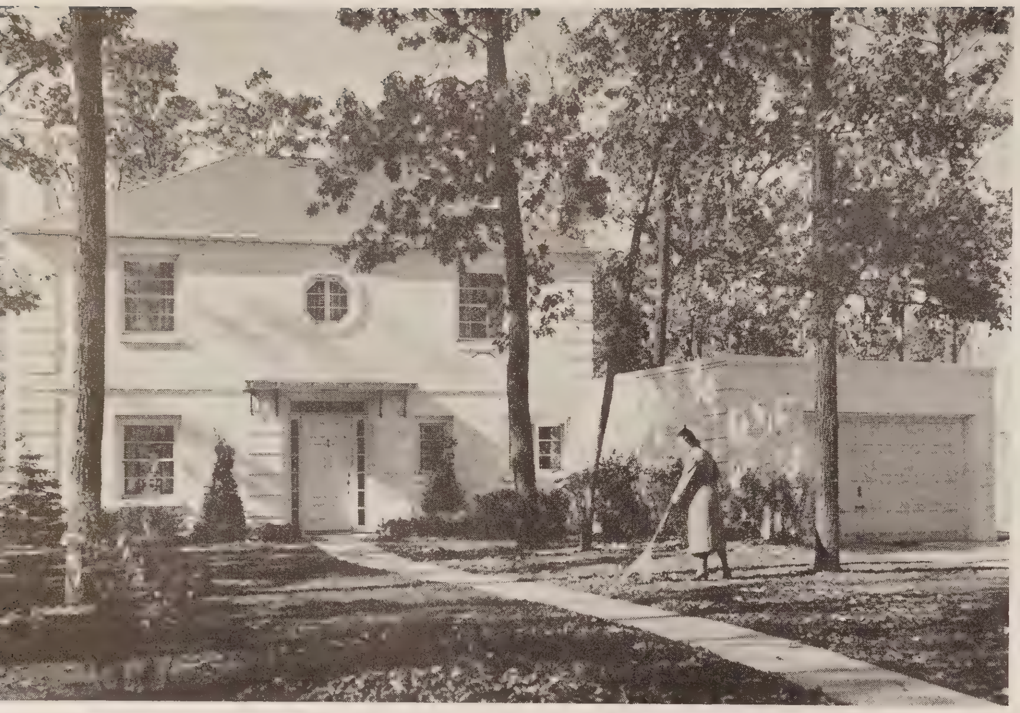


Second Floor

A Different Colonial

BEAUTIFUL PROPORTIONS and architectural details lift this Colonial home above the usual. The entrance is a replica of an old New England doorway. The front of the first story, protected by the overhang, and the gable ends are finished in flush pine sheathing. The balance of the walls are shingled, while the roof is green slate. Walls and black-capped chimneys are painted white, blinds are black-green. The three units of the house include the two-car garage wing at the right, a stone-paved porch at the left, and the house proper between, its balance and solidity maintained by the two heavy chimneys. Examination of the plans discloses room arrangement to each side of the central halls, upstairs and down, with ready access to all rooms from the main halls. The dining alcove insulates the dining-room from the kitchen, and here, too, is the entrance to the garage. The home was designed for Mr. H. L. Spaunberg, of West Hartford, Connecticut, by Architect A. Raymond Ellis.





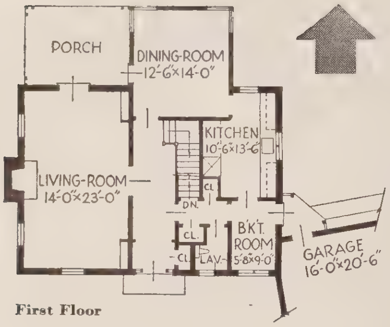
Georgian Beauty With Modern Touch

TWO UNUSUAL IDEAS feature this Georgian home designed for the Grant Clarks of Wilmette, Illinois, by Architect L. Morgan Yost. *One:* the living rooms of the first floor have been concentrated toward the rear to take advantage of a splendid view from living- and dining-room windows. *Two:* for easy access, the attached garage has been placed toward the front of the lot. The garage, with the short wall that hides its doors, is set at an angle to subdue prominence and to open up the street view.

There's classic beauty in quoined corners and a touch of the Modern is given by the horizontal window lights and the flat canopy over the front door.

Inside there's ready access to any room without passing thru another. A good feature, too, is the direct access to the front hall and its lavatory from the garage. The living-room of generous proportions provides for the individual comfort of all the family, and corner windows brighten the dining-room. Ever convenient is the breakfast room.

Two baths serve upstairs bedrooms, and there are numerous closets both upstairs and down. The centrally located linen closet upstairs is close to the bedrooms.



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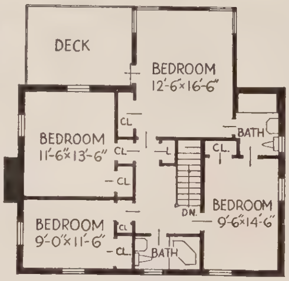

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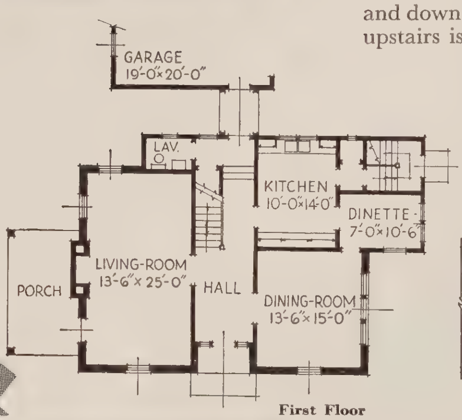

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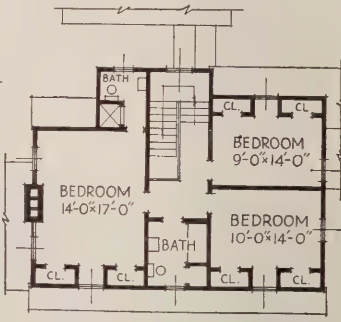
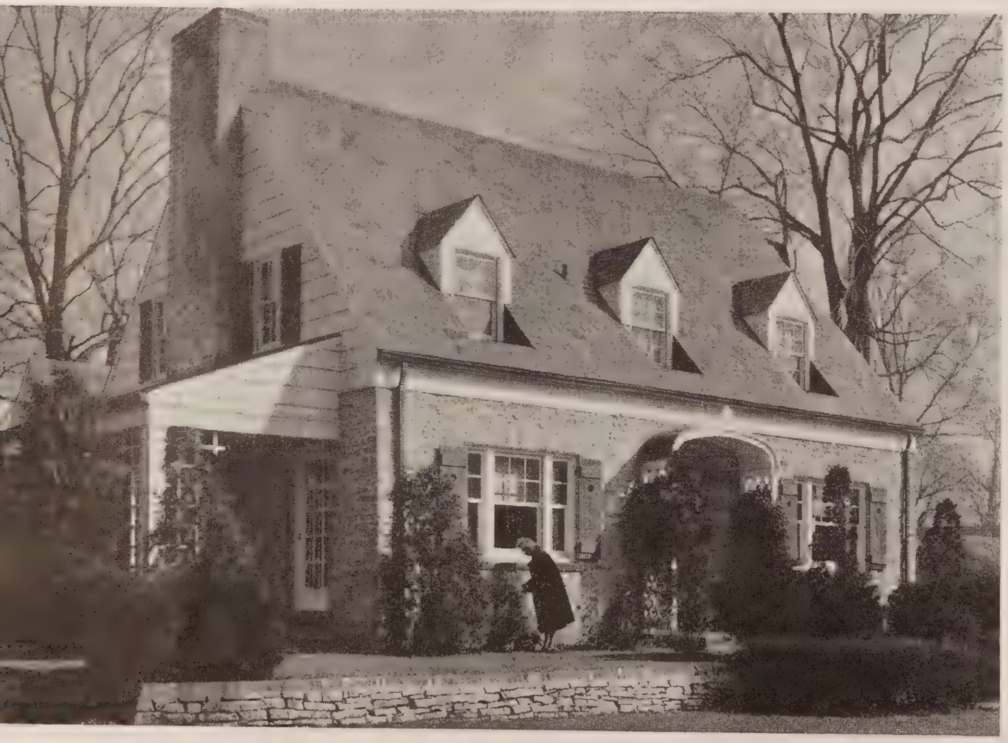


Second Floor

Seven-Room "Cottage"!



TOO RARELY USED, but architecturally distinguished, is the raising of this house above street level on a firm, broad terrace. If your lot is low in relation to the street, it's an attractive solution.

But that's an incidental feature of this rather amazing home. Behind those front walls, which give all the appearance of a cottage, we find seven generous-size rooms. It has a downstairs lavatory and upstairs are two baths, one with a shower stall.

Other fine features of this plan that should be considered are the direct access to any room, downstairs or up, without passing thru another; downstairs lavatory convenient for clean-ups on the way in from yard or garage; sheltered passageway to the garage; dinette in a wing with windows on two sides for light and air; a stair-landing that breaks the climb up and gives privacy to the upstairs hall. Each of the three bedrooms is provided with two roomy closets.

Already distinguished, the design is further enhanced by the recessed front entrance and the attractive canopy and lattice. Architect Herbert F. Smenner designed it; and H. Kay Nicewanner built it for the Ed Haymonds family, of Muncie, Indiana.

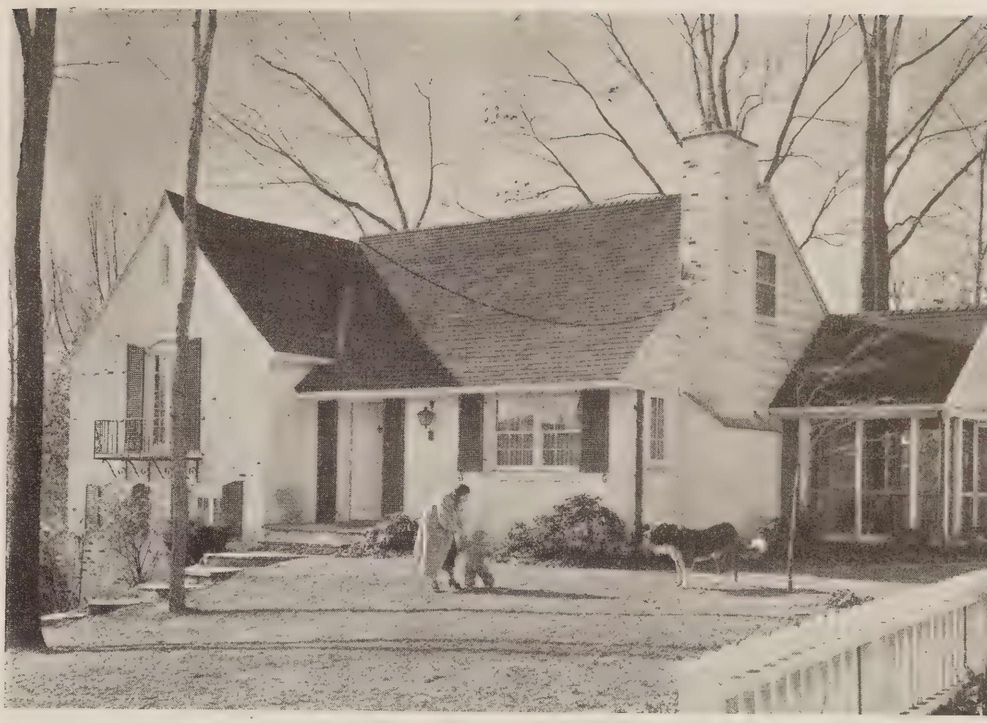
Designed for the Site

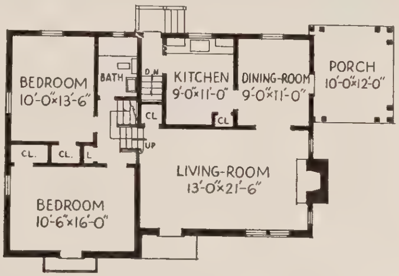
NO MATTER on what style of architecture you may have set your mind, first and foremost consideration should be given to selecting a style that fits the site you have selected for your home.

You can, however, have your style, but placing it on a country site insures that it won't duplicate its city cousin.

Here's a ground-hugging French Provincial—just the home for a country hill; and while similar in detail to its urban cousin below, it offers decided contrast. Here a sloping site has meant certain architectural changes, and incidentally several levels for the different rooms. Lowest is the garage, next the kitchen and living rooms. On the third level, above the garage, are two bedrooms; and on the fourth level, above the living-room and kitchen, is a third bedroom, with its lavatory. Downstairs is a full bathroom convenient to but isolated from the living portions of the home. The living-room really has *living room*, and is supplemented by the screened porch where pleasant, outdoor dining is in prospect.

Architect Emil A. Schmidlin, of Union, New Jersey, designed this home for himself; and the F. W. H. Construction Company, of Millburn, New Jersey, constructed it.





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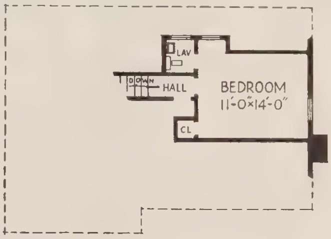

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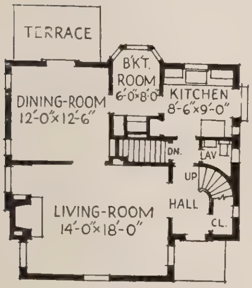

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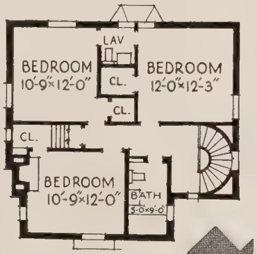


Second Floor

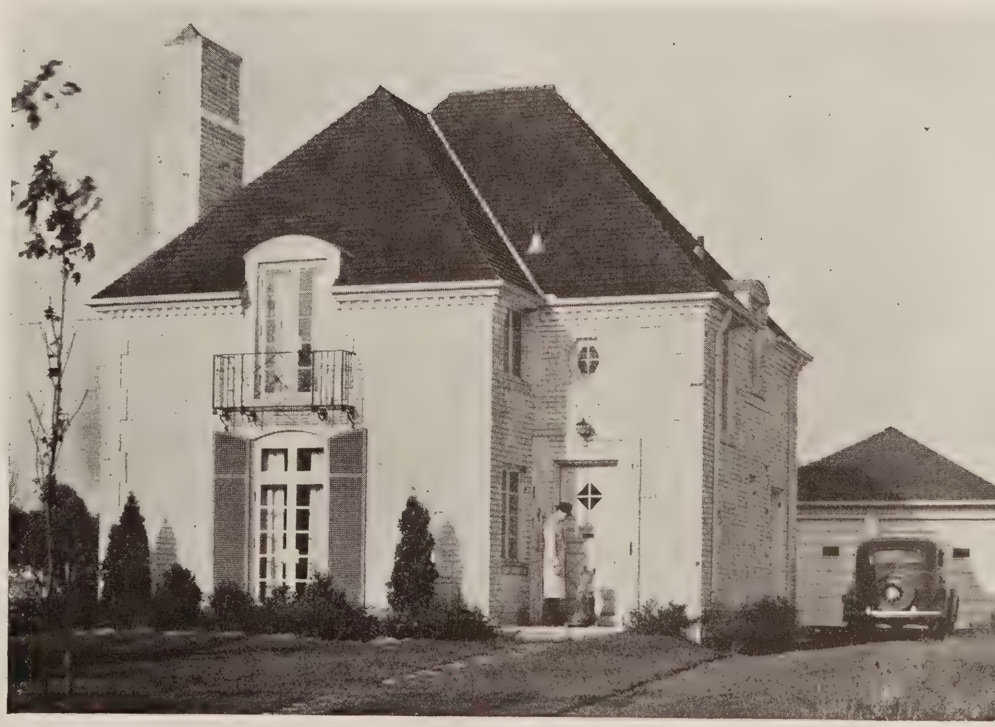
French Provincial

OF COURSE, it's different from such a home you'll find surrounded by a couple of acres, but here's one to quicken your vision. This home and the one above have French origin in common, such as French doors opening on almost identical balconies. This design has symmetry, however, and even tho placed on a flat, narrow lot with evergreens planted on each side of the central motif, it is a proud home. Notice the classic touches of moulded cornice and the corner quoins in brickwork.

Inside is a graceful circular stairway with an iron railing, a breakfast room set in a deep bay that almost takes you into the garden to dine. While there's just the one bathroom upstairs, the two large rear bedrooms have, in addition, a lavatory in common.

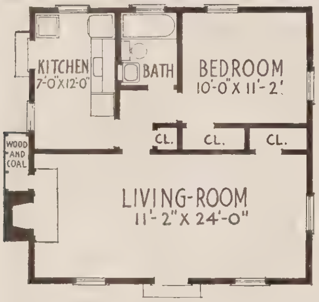
In the roomy living-room there are large wall areas to provide for individuality in furniture arrangement and a typical hearth of good proportions to lend warmth to your decorative scheme.

This home is that of Mr. Lloyd G. Buchholz of Grosse Pointe Farms, Michigan, and was designed by Talmage C. Hughes, a Detroit architect.



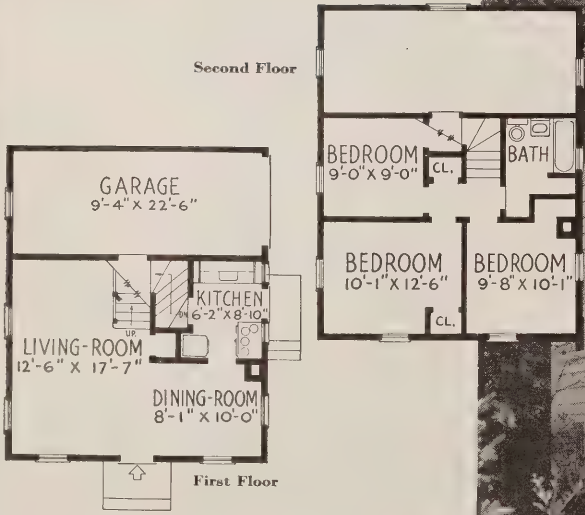
$2500, or $25 a Month

IN 1938 the National Small Homes Demonstration Bureau, of Washington, D. C., built eight "guinea-pig" homes in suburban Washington at costs ranging from $2500 to $4,000 for six rooms and a garage, and the homes on these two pages are four of those built. At this time homes are rapidly approaching what might be called "prefabrication," the final result to be the cutting-to-fit of all materials used in them by the associated building-material dealers, and delivering on the job ready for assembly. In the home pictured left, a subfloor of two-inch-thick planks laid flat over girders 6 feet apart replaces a joisted subfloor, with half as much lumber and nails used. The entire floor was built in one-fourth less time, with a seventh less lumber, and a saving of some $45 on that part of the building. The home is adequate for the newly married couple and designed to grow with the family. A living-room and porch wing can be added on the right, and the old living-room divided into bed- and dining-rooms. Or add a living-dining-room and porch wing on the right, divide the old living-room into two bedrooms, and you have an attractive three-bedroom, five-room home.



Three Bedrooms Plus

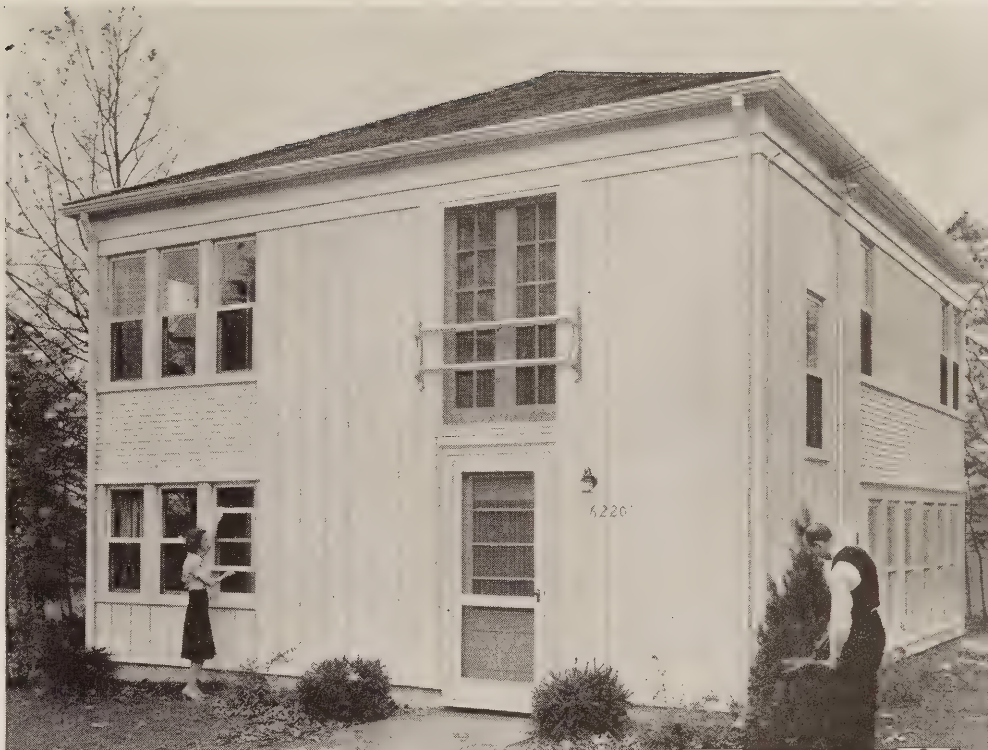
A COST-WHITTLING factor in the home pictured below, done in the good New England tradition, is the overhanging second floor. It whittles costs on basement excavation and masonry, and yet lets the second-floor bedrooms stretch out. Especially handy is the large, unfinished room over the garage. It has a multitude of uses—maybe as a storage or playroom, maybe a fourth bedroom. The house was built in Washington, D. C., for about $4100; which means, on a $750 lot, with an initial payment of $485 and about $40 a month, including an average amount for taxes and fire insurance, it will be possible for many families of small income to become home-owners. The house is small, of course, but the living-room is large enough to insure that one does not feel cooped up, and the vista thru the dining-room toward the rear of the house enlarges the appearance. The kitchen is an efficient meal-preparation center, and closets are provided in all rooms.

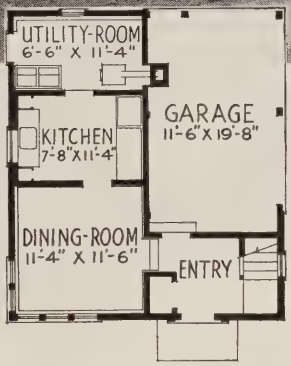


With Basement Above Ground!

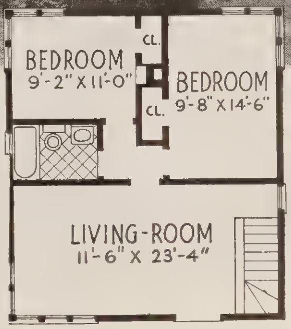
THIS MODERN is an experiment in planning. It has about the same number of cubic feet of space inside as a three-room bungalow with a basement, but is built entirely above ground. Space ordinarily wasted in the basement is utilized for the dining-room and kitchen; the living-room and bedrooms are on the second floor. Thus you get five bright rooms for about the cost of three. Unconventional, too, is the combination porch and garage. In weather too cold to lounge on a porch, the space is a garage. In summer the side walls open and you have a porch where you can stretch your legs and drink frosty drinks.

An alternate plan provides a garage on the rear, divides the upstairs living-room into two more bedrooms, and turns the porch-garage into a first-floor living-room. The walls are raised without the usual 2- by 4-inch studding, being of self-supporting 2- by 6-inch planks. A wall of texture different from that illustrated is constructed of grooved 2- by 6-inch planks, the edge of one plank being fitted into the grooves of those on each side. Carpenters build such walls in a third less time with a sixth less lumber. This house was built with the others for a total cost of $3,753.





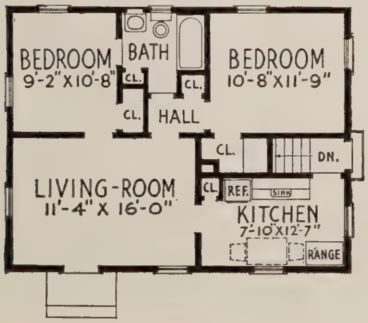
First Floor

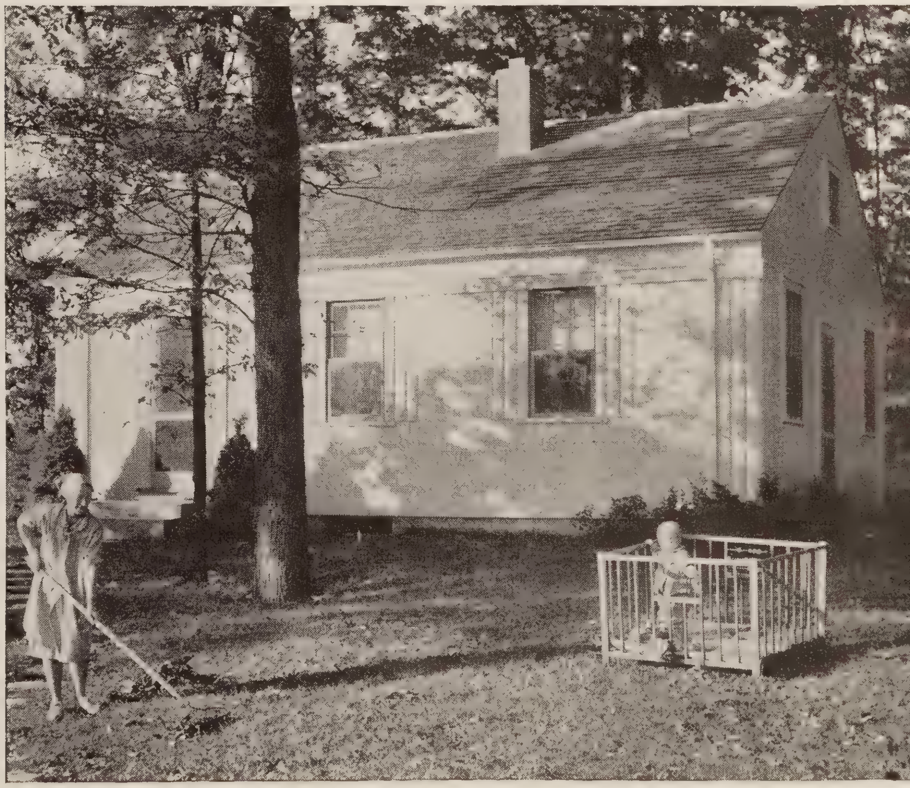


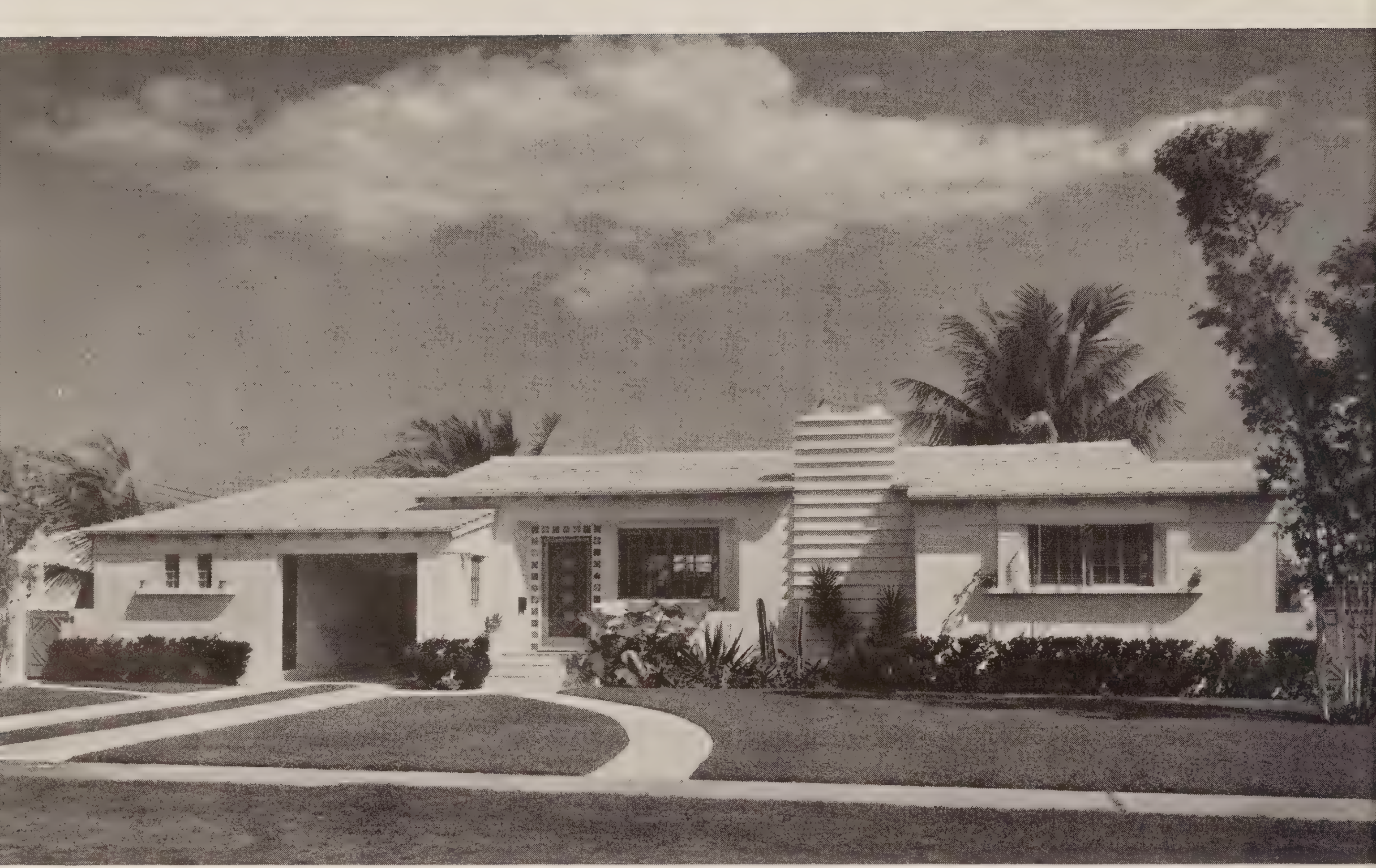
Second Floor

Two Bedrooms – Basement

THIS HOUSE IS the conventional two-bedroom cottage with a basement. The shutters, the corner decorations, and the door—all made of stock log-cabin siding—give it character of its own. To spread the house to five rooms, you make a dining-room of the present living-room and add a living-room with a porch behind it to the left end. If you want a garage, there's an alternate plan that fits it nicely on the right end. Until you enlarge the house, there's space in the kitchen for a dining nook. This unusually attractive low-cost home was built and landscaped in Washington, D. C., for $3,097. These four houses bring home-ownership into the realm of possibility for the families of the low-income group.

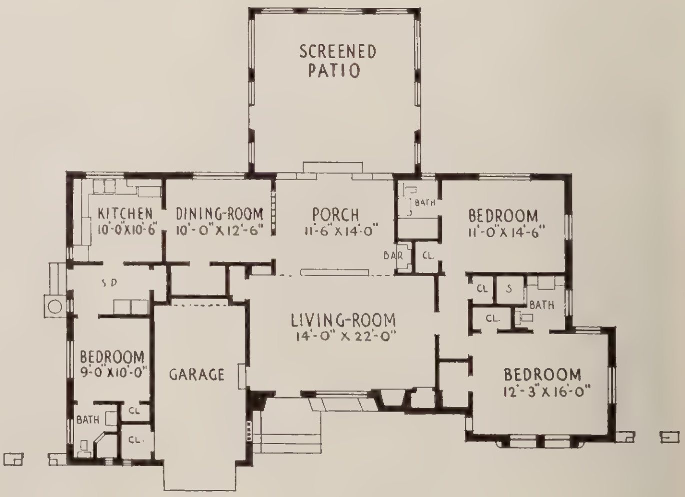






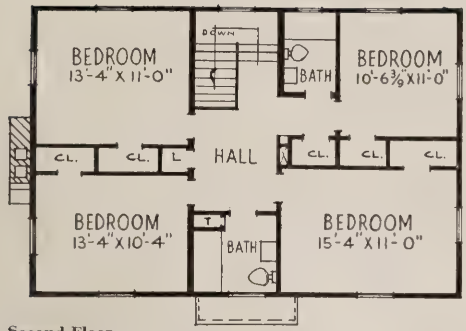
Gottscho

An Outdoor-Lover's Home

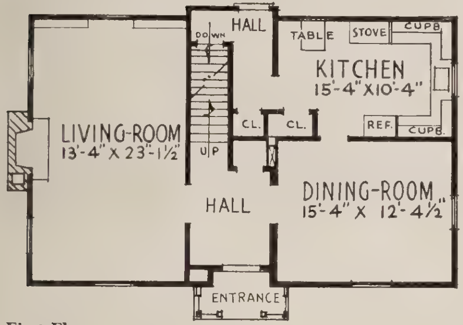


THIS SMALL HOME has been so arranged that there's maximum circulation of air during the summer days and bright coziness for inclement spells of winter. This unique ideal is apparent upon entry of the front door, for living-room, sun porch, and screened patio are in a direct line. The patio, screened all around and overhead and floored with dark-green terrazzo, is for basking in the sun on summer days, or lolling in the full moonlight. Low-running ledges for potted plants make it a veritable greenhouse. The design secures the prevailing southeasterly breeze for the three bedrooms for owner, daughter, and maid; and each bedroom has its private bath.

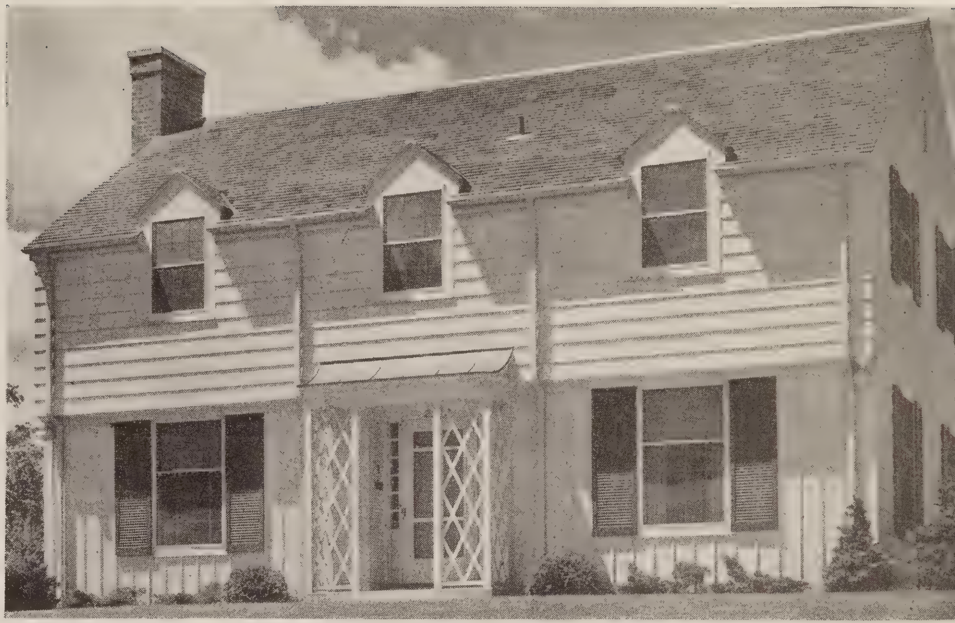
The living portion of the house—living-room, porch, and screened patio—is practically one room. Included in the plan are storage spaces of varying size and accessibility: tool room and trunk space are available from the garage; the attic of the house itself is attainable by a pull-down stair in one of the bathrooms; there's a shelved storage-room adjacent to the dining-room. The exterior of this Mexican cottage-type house is low and of simple dignity. Ledges for potted plants enhance its simplicity, and the cool, pale green of its walls is further cooled by a flat, white-tiled roof that reflects the tropical sun. John D. Rodeheaver was the general contractor who built the home for Mr. and Mrs. Arnold Southwell and daughter, of Miami Beach, Florida, and Mr. Southwell himself was the architect who designed the house.



Second Floor



First Floor



John W. Barry

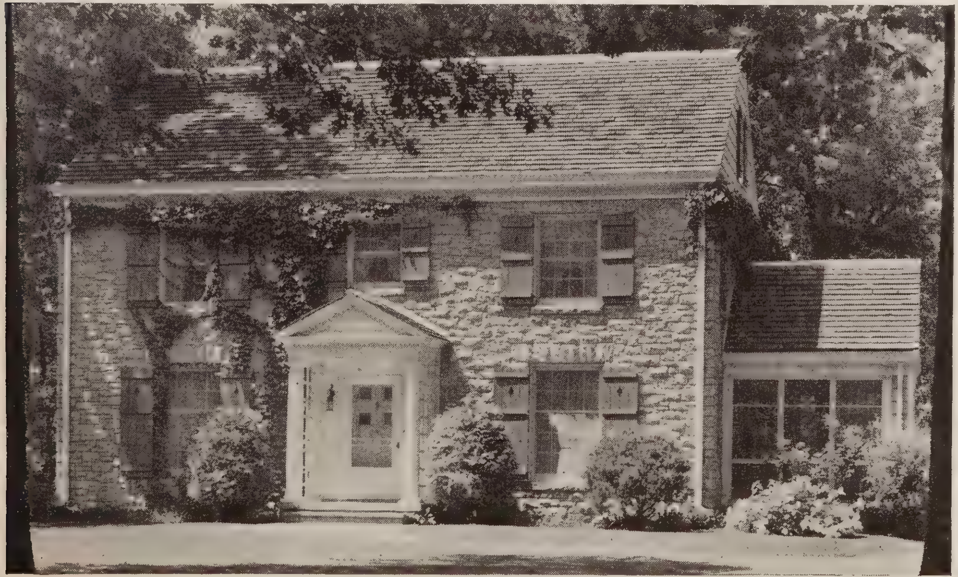
Boards and Battens Below

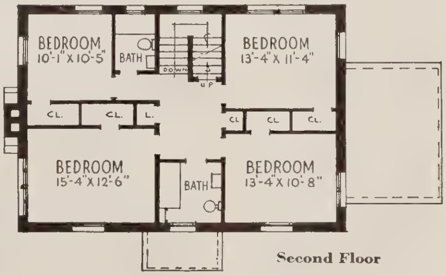
THE MINIMUM requirements for this rather large family were four bedrooms and two baths—still neither a large house nor an expensive one was desired by the owner. This final solution has given plenty of room in the living-room and bedroom spaces, and as well in the large recreation room that has been provided in the basement. The white Colonial exterior is pleasant with its green shutters, overhanging second floor, and vertical boards and battens on the face of the first floor; and the curved roof supported by the latticework shelters the recessed front door. Privacy for the rear garden is secured by connecting the garage to the house with a rather high fence. This Cedar Rapids, Iowa, home was designed and built for Mr. A. S. Vermeersch by Bruce and Kenneth McKay, also of Cedar Rapids. It merits your study.

Lasting Beauty and Construction

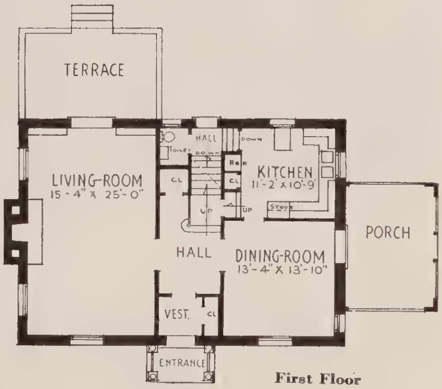
THIS IS A DESIGN as lasting as the stone with which it is built. The wide wall spaces and the window locations all add to the feeling of strength. The arrangement was planned for comfortable living, with screened side porch and open rear terrace. The back stairway from the kitchen to the landing makes for better circulation. The four big bedrooms and two handily located baths upstairs give ample space and convenience for a large family; and the downstairs powder room is particularly well located. The exterior is native stone, laid rough with wide flush mortar joints. This house is owned by Mr. J. E. Franken, of Cedar Rapids, Iowa; and, like the house above, was built by Bruce and Kenneth McKay, contractors, of Cedar Rapids.

John W. Barry

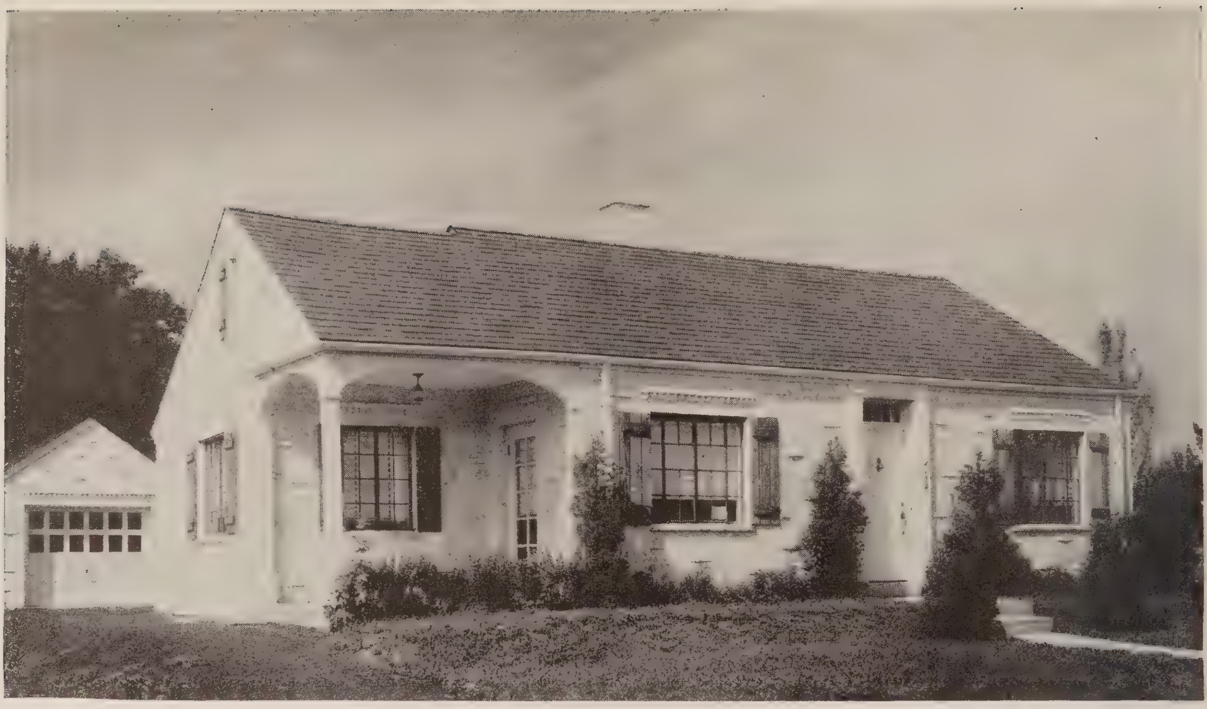




Second Floor

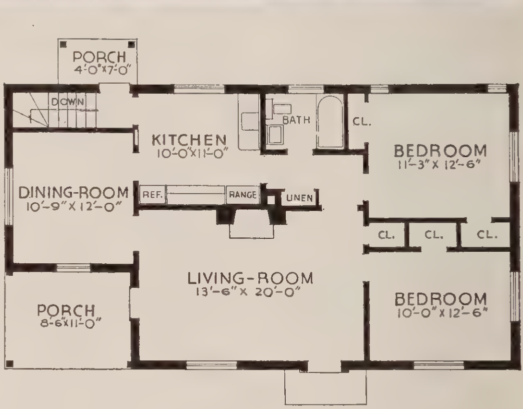


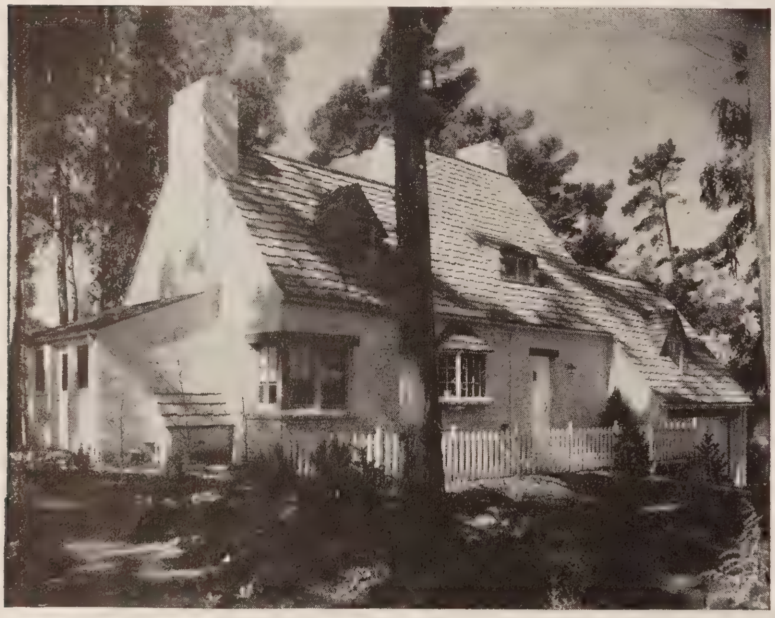
First Floor



5-Room Efficiency

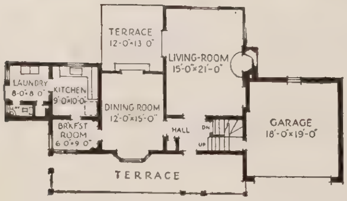
A GLANCE AT the picture of this home, product of the skill of Chicago Architect George Loane Tucker, reveals excellent one-story arrangement of a 5-room home. Altho overall dimensions are within reasonable limits, Architect Tucker has provided rooms of good size and ample closet space for the bedrooms, with a coat closet off the living-room, and a linen closet adjacent to the bedrooms and bath. The modest exterior treatment is beautifully handled and the arches of the small corner porch are of particularly good scale. The garage carries out the decorative details introduced in the house itself. Tho the house is small, its different elements are well segregated, with hall space at an absolute minimum.





Overlooks the Golden Gate

BECAUSE the elevated site on which this 6-room home is built commands a fine view of San Francisco Bay, it was especially designed to take full advantage of that splendid vista. The home delightfully combines a variety of interesting materials and provides a street entrance to the garage that is architecturally fine. The roof is of hand-split shakes, and the variety in shape of the dormers and simplicity of the garage are distinctive. Altho the rooms are arranged to preserve an unusually fine view from all of the principal ones, the practical arrangement for accessibility to all of them has not been penalized. Corner windows brighten the breakfast room, the dining-room has a delightful bay window, and there are doors opposite which open onto the terrace. In the living-room is a fireplace; and upstairs we find closets aplenty, large bedrooms, with adjacent bathroom with shower, and a lavatory. Under the eaves, too, is a large storage space available from the hall. In the kitchen we find the efficient "L" arrangement of cabinets and work surfaces, and the window over the sink lightens the after-dinner clean-up work. Welcome addition is the convenient laundry room, off of which is a downstairs lavatory. Architects Miller and Warnecke, of Oakland, California, created the design of this delightful home for Mr. and Mrs. Carrel Weaver.



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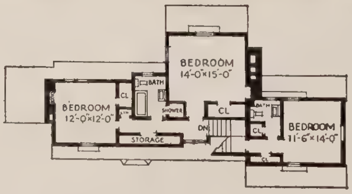
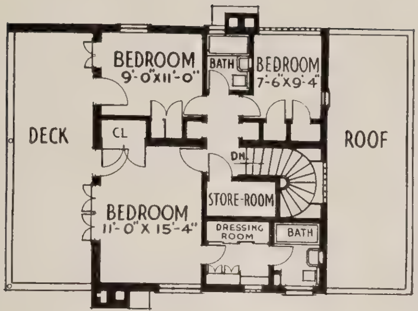


Second Floor



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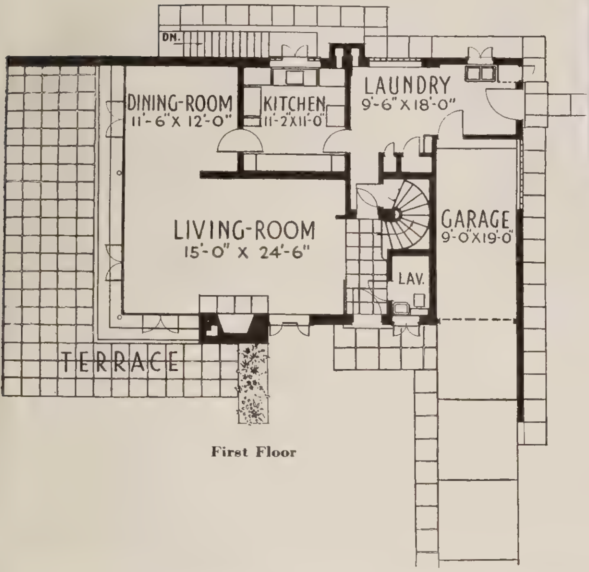

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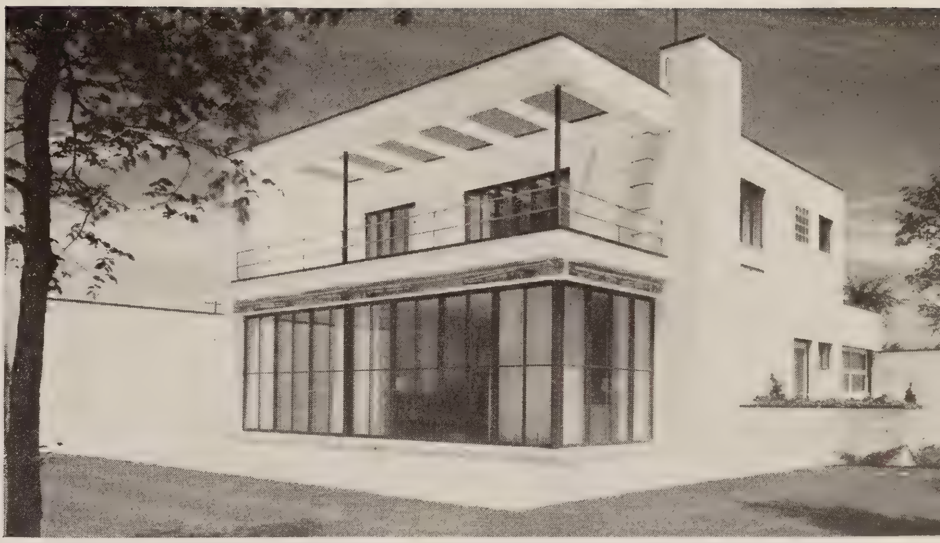
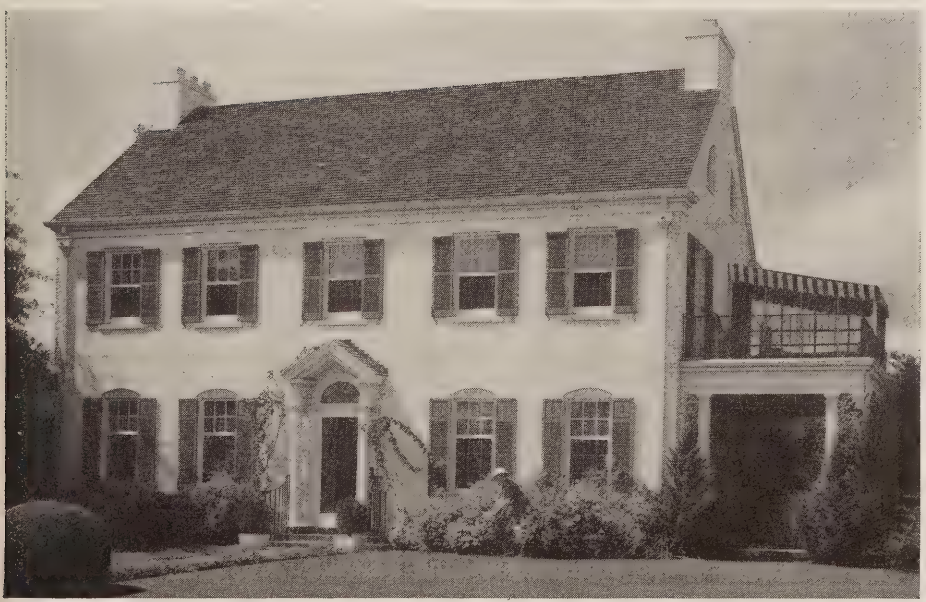


Concrete Thruout

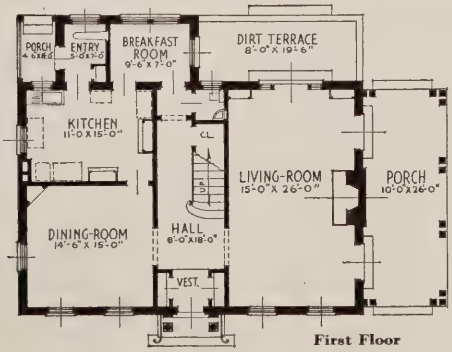
THIS EXAMPLE of the Modern was designed to take advantage of a Skokie Valley view and an excellent southwest lot orientation, by Architect Gilmer V. Black, of Evanston, Illinois, for Mr. D. S. Colburn. It's completely fireproof. Exterior walls are of concrete, while floors and roofs have concrete joists with reinforced slabs. Flush birch doors are set in steel frames; living- and dining-room floors are of herringbone white oak laid in mastic; entrance and stair are of Italian travertine marble, as is the fireplace. Baths and lavatory are tiled. A small basement provides for storage of firewood and porch furniture. But the heating and air-conditioning system is in the laundry-utility room on the first floor. Plumbing is all of copper. Kitchen and utility-room floors are linoleum. Interior downspouts are cast iron.



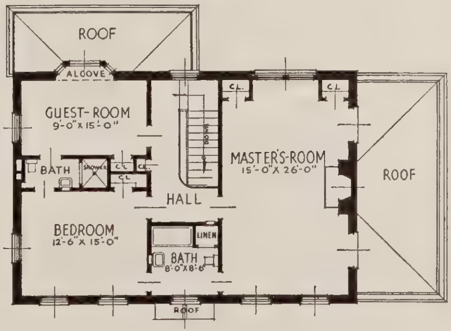
Conventional Colonial

THIS CONVENTIONAL Colonial plan has the hall and vestibule in the center, flanked on one side by living-room and open porch, and on the other by dining-room, kitchen, and entry. Upstairs, the openings of the bedrooms and baths are so arranged that private baths may be provided when desired. In the separate two-car garage are servant's room and bath, with laundry space opening onto the service yard.

The exterior finish is painted brick walls and trim—white for the walls, moss-green for the shutters, and weathered-gray for the roof. On the interior you find painted plaster walls thru the entire house with the exception of the dining-room and the breakfast room, which have scenic paper. This is the Judge Masterson home designed by Architect Ben E. Irby, of Beaumont, Texas, and it was built in Beaumont by John Edgar Heartfield.



First Floor



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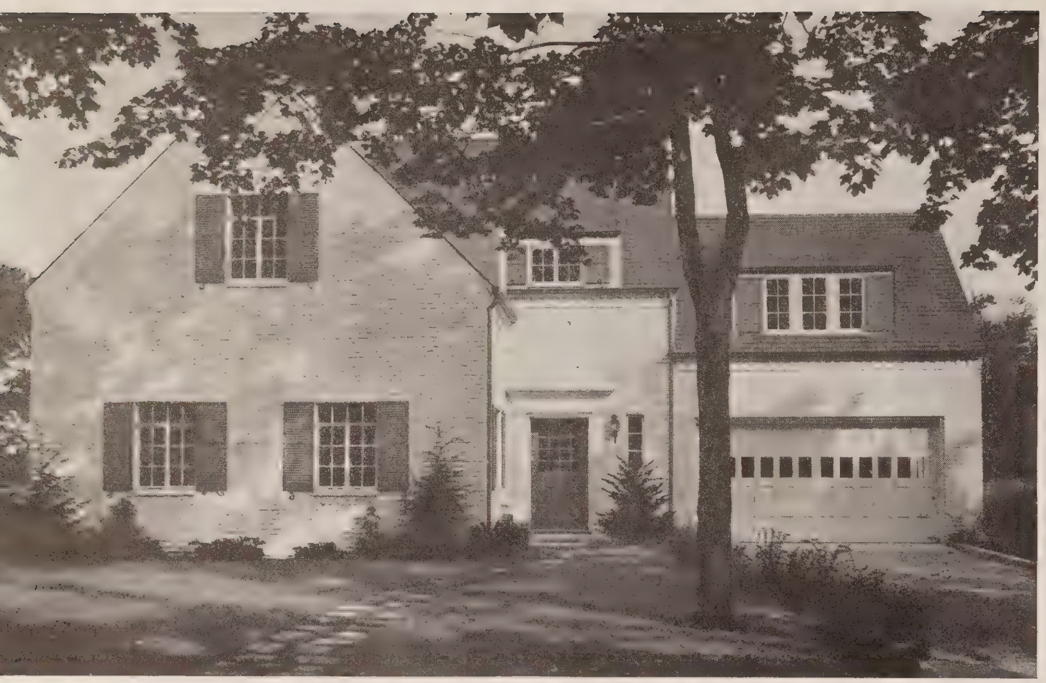
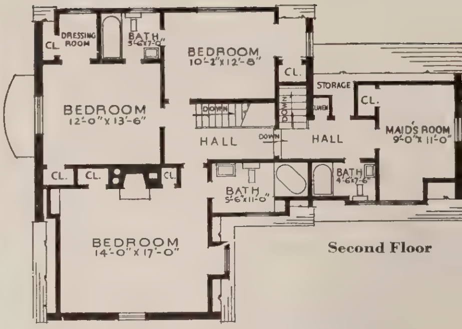


Photograph by Gustav Anderson, Courtesy American Architect and Architecture



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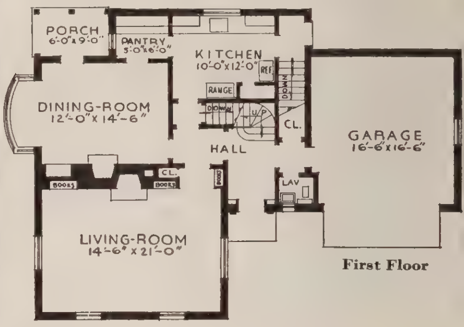


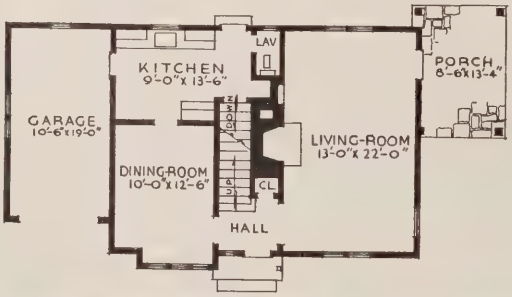
First Floor

Whitewashed Common Brick

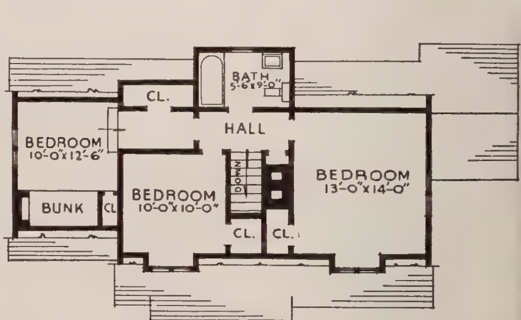
WHITEWASHED common brick over cinder blocks and open steel joists as floor beams result in the termite- and shrinkproof construction of this Garden City, New York, home. Dark green shutters and raked joints accent the brick texture. Architect Reinhard M. Bischoff designed this sturdily built dwelling for Mr. and Mrs. Pierce B. Watson.

In Blue Ridge

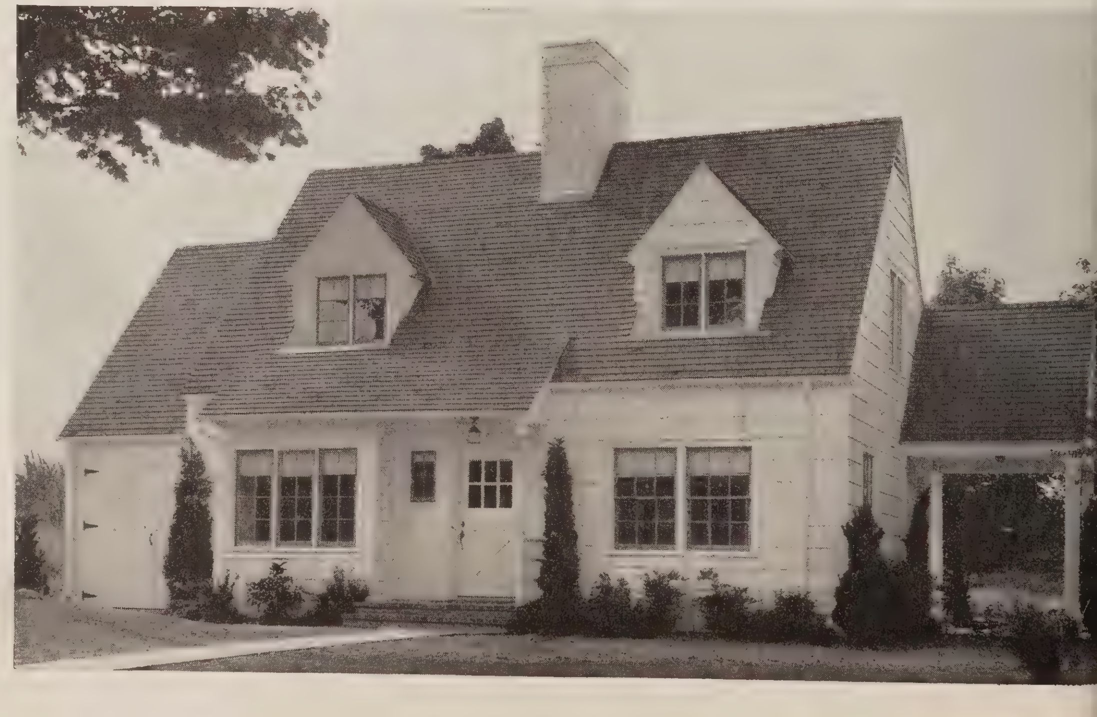
OF LATE COLONIAL architecture, this home has a Dutch-door entrance, and another Dutch door leads from the living-room to the roofed, flagstone terrace shown at the right in the photograph. Floors are of dark-stained oak in random-width style. Basement extends under part of the house only, and is complete with heating equipment, laundry, and tiled-floor lavatory room. Upstairs, the bathroom has a tiled floor, and there are three bedrooms, the one over the garage with built-in bunk in ship style. This house was designed by Architect George Wellington Stoddard for Hugh H. Russell's Development of Blue Ridge, near Seattle, Washington, and sold complete with 60- x 125-foot lot for $5,800. Attractive plantings extend past the corners and along the sides of the house.

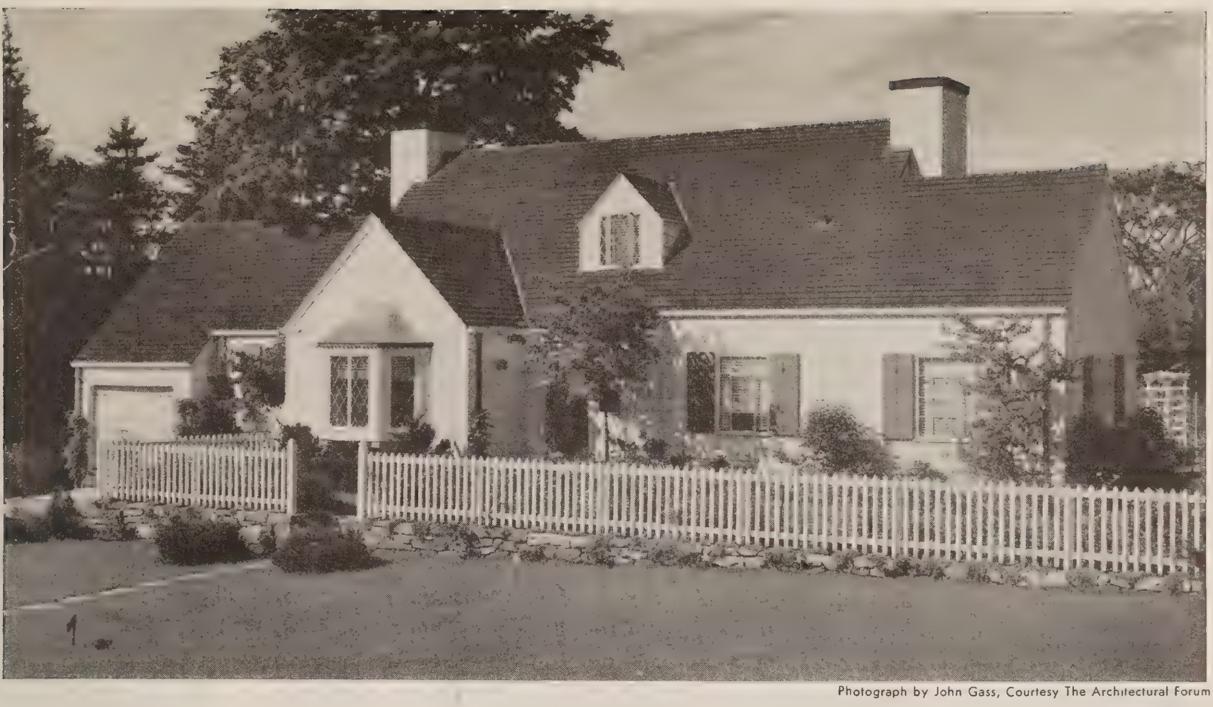


First Floor



Second Floor

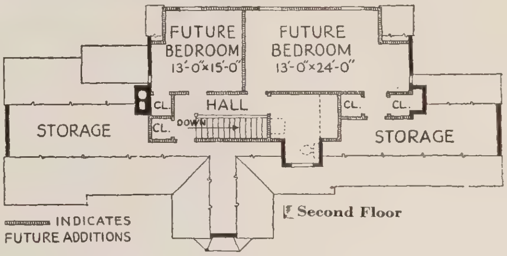




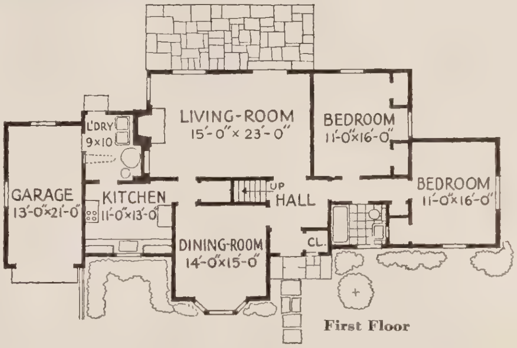
Photograph by John Gass, Courtesy The Architectural Forum

Victorian Shingled Cottage

FOR ALL ITS reminiscence of early Victorian modes, this little white-shingled house is romantic without being sentimental, and practical tho picturesque. While the wee picket fence and the latticed casements of the dining-room bay window add a storybook appeal, you'll note that the metal-casement adaption of the other windows is both ingenious and modern. Often such a house will fit into a local scene more consistently than will a house of uncompromising characteristics. Indoors, there's a very independent arrangement. While many home-builders prefer a breakfast nook adjoining the kitchen, this has a first-floor laundry. Its dining-room and kitchen are in front, and the living-room opens, thru French doors, to a rear flagstone terrace. You'll note in the plan that the upper floor, not needed for present occupancy, can be arranged easily into two bedrooms and bathroom, with plenty of remaining storage space. This house, of cozy appearance behind its picket fence, was designed by Architect Lucius S. Beardsley for George V. Christie, and built in Purchase, New York.



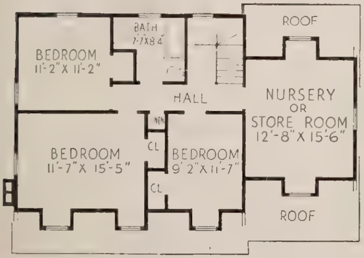
Second Floor



First Floor

Wychwood Cape Cod

IN DESIGNING this home for Mr. and Mrs. Lloyd Hale, of Wychwood, in Westfield, New Jersey, Architect Henri Heps had many problems to solve—a hilly plot, the 100-foot front on a curving road, plus the building of a moderately priced house with good construction and modern improvements and equipment. All these problems were happily worked out, the edge of the hill permitting both driveway and attractive entrance, with the front lawn untouched, and placing the garage in the basement at the rear of the house. A composite of Dutch, Early American, and Cape Cod, the exterior is shingled, old ivory in color, with attractive Colonial blue-green shutters.



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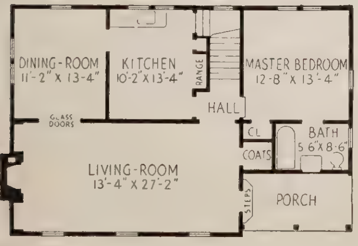
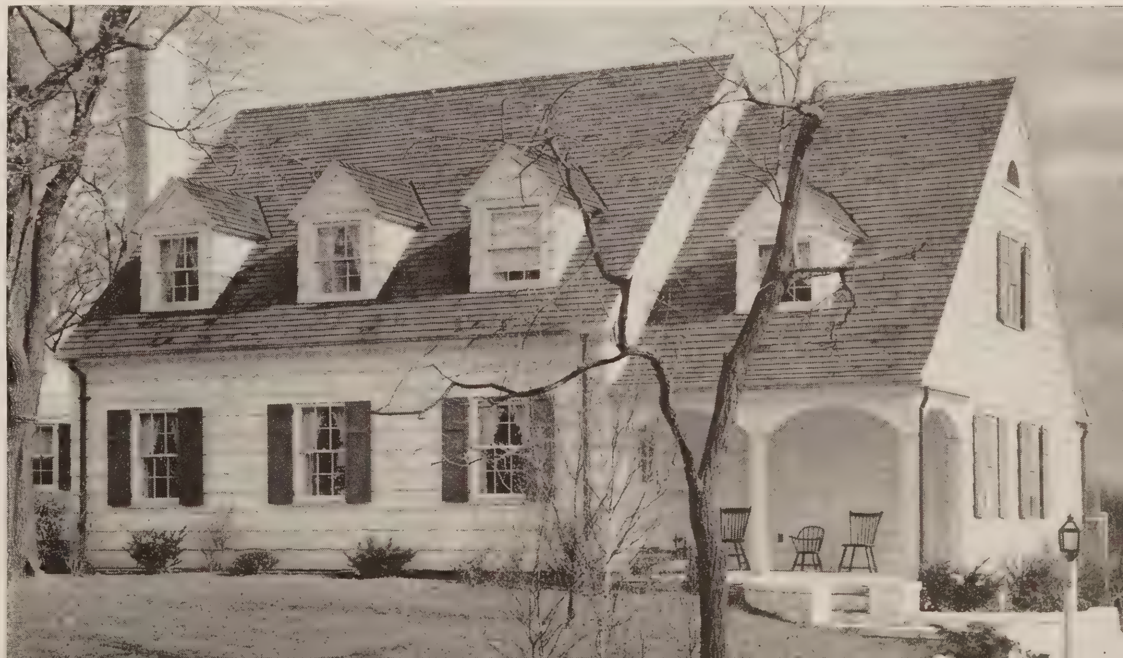
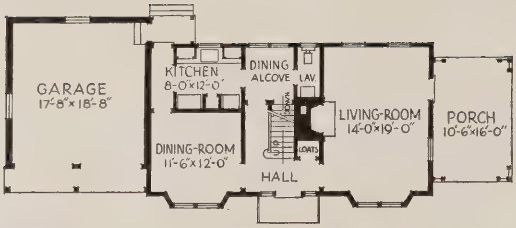


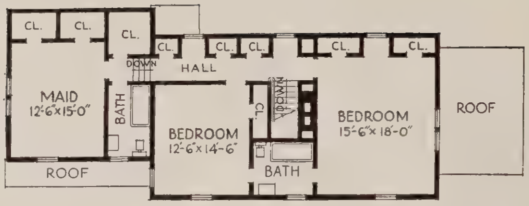
First Floor

Richard Averill Smith





First Floor



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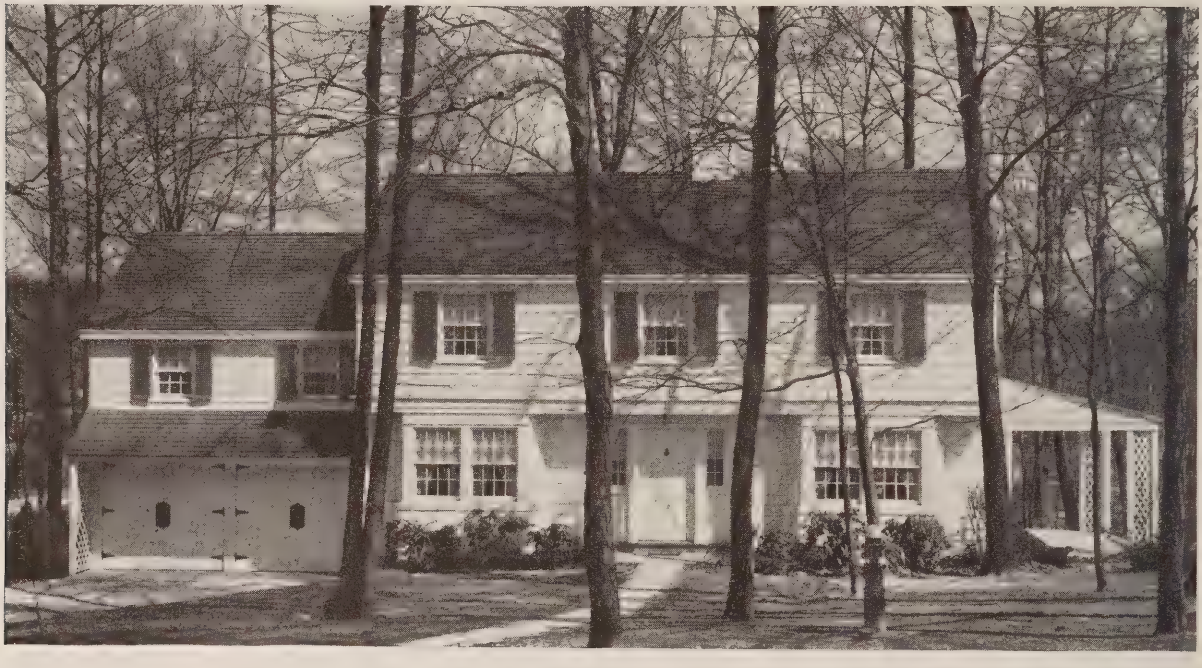
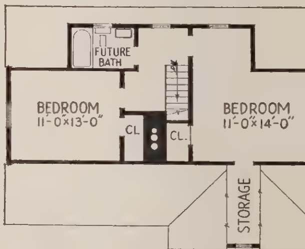


Recessed-Entrance Treatment

THE BAY WINDOWS of the dining- and living-rooms, and the overhanging second floor, create an attractively recessed-front-entrance treatment in the Colonial home above. It was planned by Architect Randolph Evans and built in Yonkers, New York. Two ceiling globes at each side of the recess give the doorway night beauty as well. Also, a small dining alcove in addition to the dining-room and a lavatory are noteworthy features of the first floor. Upstairs the two bedrooms are provided with closet-room aplenty and adjoin the bathroom; over the garage there's a maid's room with bath. Roof is of red cedar shingles, and inside flooring is select red oak; trim, white pine; and stair railings are birch. Note that the two-car garage has trellis trim harmonizing with that on the porch to the right in the photograph. The framing of the house is Douglas fir, sheathing is North Carolina pine; and clapboards are of painted redwood.

Trim Beauty Behind Pickets

EXCEPT for materials used, this design (below) by Architect Kenneth W. Dalzell, Summit, New Jersey, is similar to Cape Cod. This is of concrete block, plastered with cement and whitewashed. The front door is very simple, and the picket fence is quite appropriate. The living-room fireplace with brick facing and wood mantel is set in a painted, pine-paneled recess. Bedrooms will accommodate twin beds, and the location of the bath makes it convenient to second-floor bedrooms until a second bath is installed a little later on.



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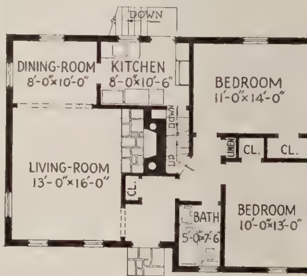
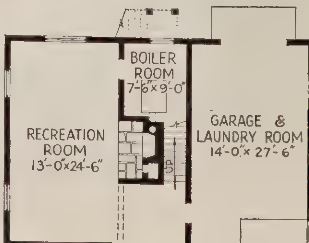
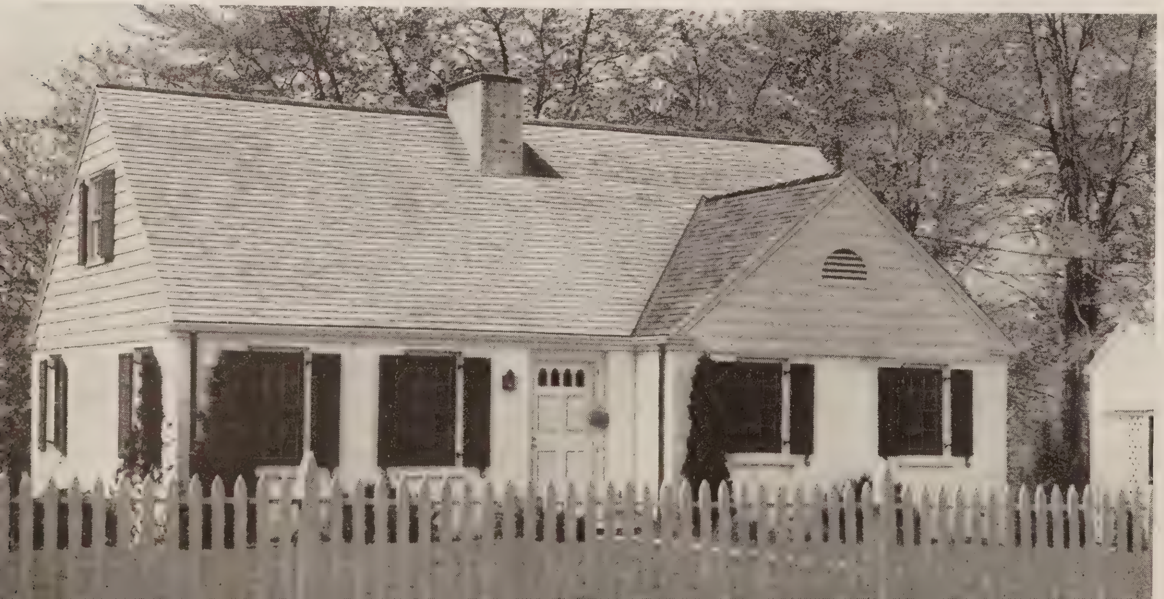
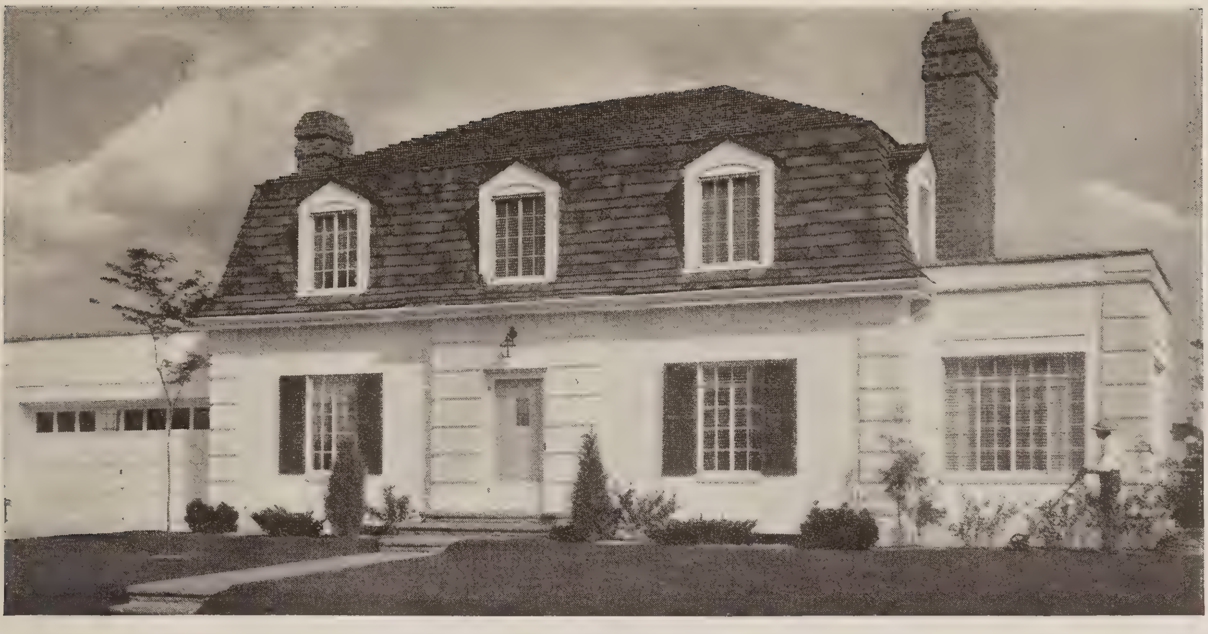


First Floor

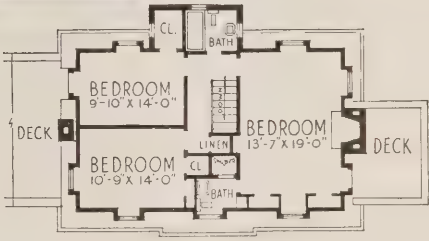




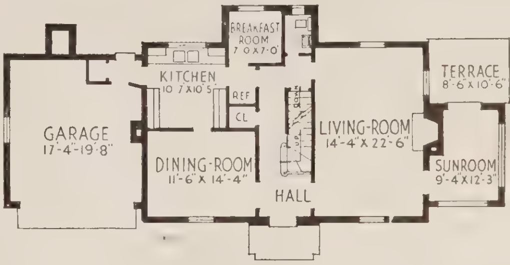


Mansard Roof — White Brick Walls

MANSARD ROOF and common brick walls painted white form a pleasantly symmetrical French Provincial exterior in this Denver, Colorado, home designed by Architect James Roger Musick. The corner quoins make interesting shadows, and the home is so oriented that the sun peeps into the kitchen and breakfast room in the morning and then into the sunroom in the afternoon. Musick used red pressed brick for this home. And that worked out nicely, for pressed brick cost from a half cent to a cent and a half less than face brick ordinarily used in Denver. Pay for painting, and costs become about the same. The attached garage is accessible thru the kitchen, and presents an unusually attractive appearance. A convenient closet at the back entrance houses the garden clothing, coveralls, and old felt hats. A downstairs lavatory is provided, while a shower is included in one upstairs bathroom and a tub in the other. The lower hallway provides access to any of the rooms without passing thru another. There is ample closet space on both floors. The large bedroom has two clothes closets and is provided with a fireplace for coziness and comfort, making it delightful as a sitting room the year round.

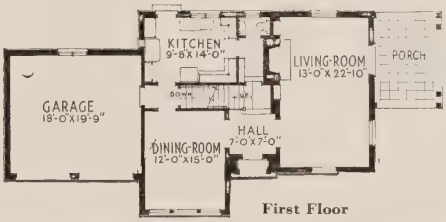


Second Floo



First Floor

For Family of Four — and Guests



First Floor
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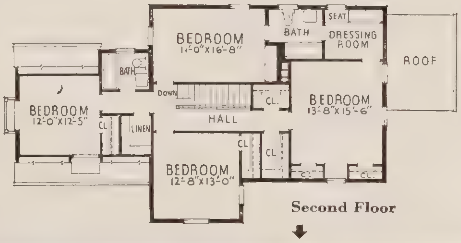

Second Floor
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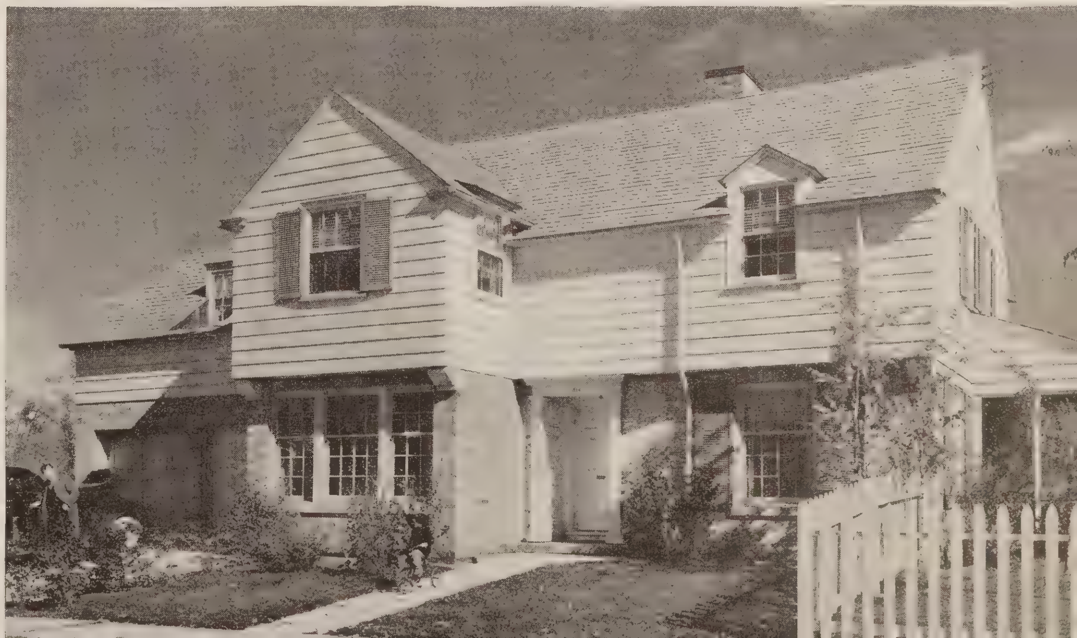
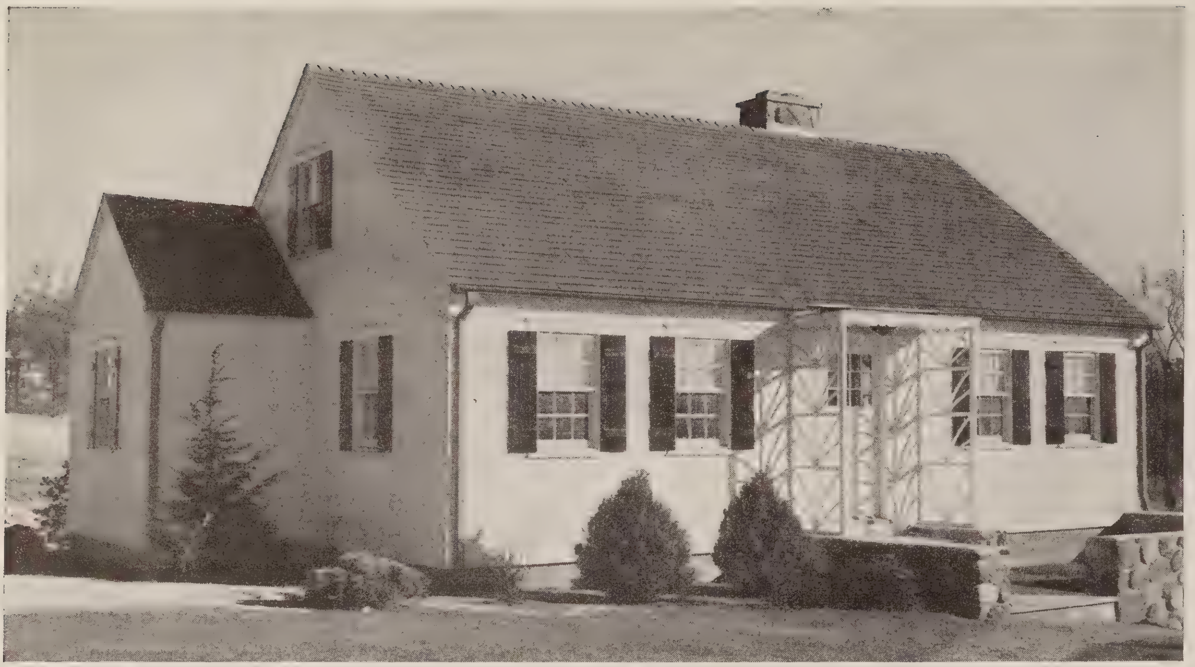
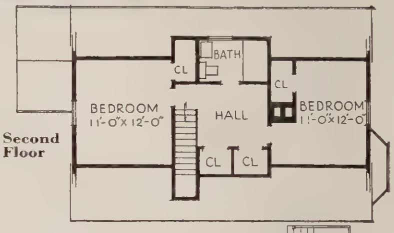
THE PROBLEM presented to Architect Beresford Beck by Mr. and Mrs. Chester Speakman, Wilmette, Illinois, was to provide a design for a permanent and compact house for a family of four, with guest accommodations. The location of the stair is particularly ingenious, providing access to the second story direct from every downstairs room. The kitchen is likewise easily accessible from the front. The lower story is faced with old brick which lends a pleasant feeling of sturdiness in contrast to the crisp effect of the projecting second story. The overhanging sections of the second story cast interesting shadows, adding to the delightful effect of coziness. The dormers, shutters, fence, and plantings all combine to give a feeling of completeness to this new home.

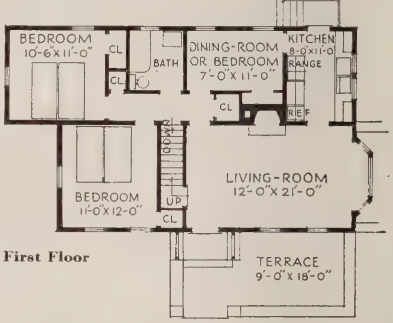



Samuel H. Gottscho

Room for Everybody

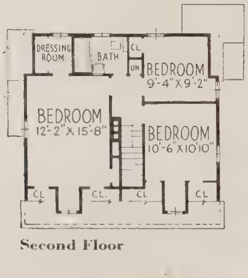
ARCHITECT WALTER BRADNEE KIRBY here has designed a small, insulated house to serve the purpose of a large structure for William P. Varian, Glenbrook, Connecticut. Optional living-dining-room and a room serving either as bedroom or dining-room are provided, and the L-shape corridor-type kitchen is directly accessible to either. The bay-windowed end of the living-room can serve for dining. Two bedrooms, in addition, are on the first floor where also are four convenient closets and a bath. Two more bedrooms flank the hall of the well-planned second floor; four convenient closets and a bath complete the resourceful layout. The exterior has been given personality by the intelligently executed continuity and coherence of detail; and the entrance has a refreshing distinction among houses of this type. The garage is under the living-room, with an entrance from the side at a lower level. Kitchen and bathrooms have durable rubber-tile floor.

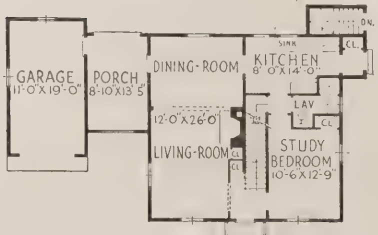

Second Floor

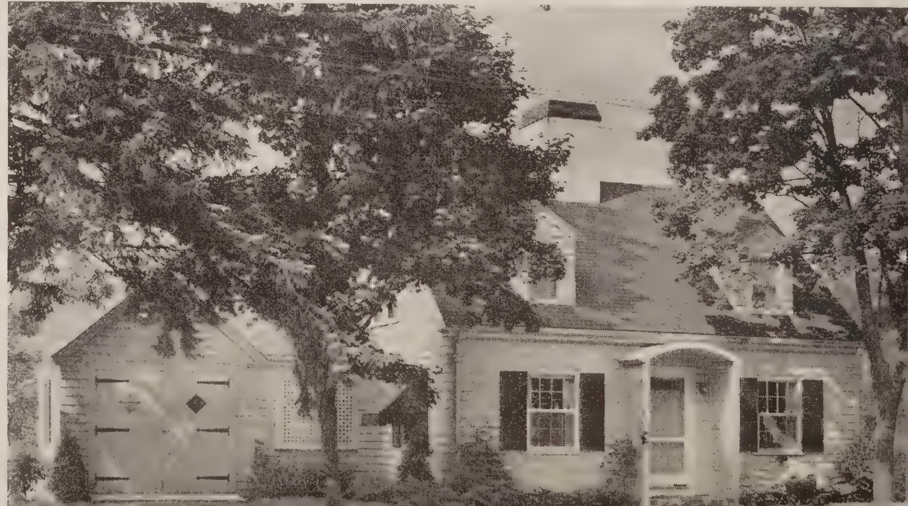

First Floor

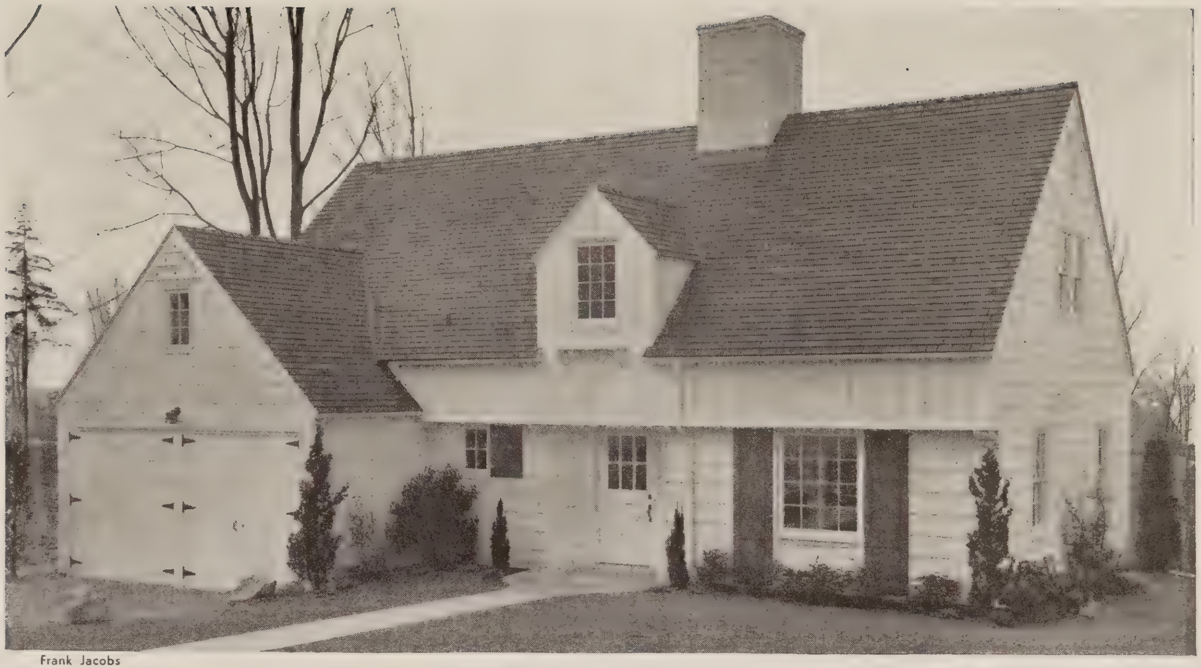
Here's a Handy House

HERE IS a home so designed that it's as easy to put things where they belong as to push them into corners or throw them on tops of things. Wherever you turn, into front door or back, there's a place to put coats, hats, or sports equipment. Note the closets in living-room, study, upstairs hall, and small bedroom; the dressing room and the two closets to each of the front bedrooms. The downstairs lavatory with shower can serve as a private bath to the study-bedroom. In stormy weather a sheltered porch takes you to or from the garage, and with its lattice, this porch, too, can serve as an outdoor dining-room. The dining-room itself is separated from the living-room by pilasters and a dropped ceiling beam. A simple wood mantel with ivory-painted paneling above completes the Colonial effect. The construction is of braced frame on concrete foundation. Exterior walls are gray-painted cedar shingles, roof is of gray asphalt shingles, and trim and doors are light ivory, all set off by blue-black shutters and black-top white chimney. Architect David J. Abrahams, of Boston, designed this home for the Leonard Dunns of Lynnfield, Massachusetts, and Willard D. Martin, Inc., built it. With many rooms and closets packed into a 26-foot-square home, the plan merits your thoughtful study, for many of the ideas for efficient home arrangement presented may be readily incorporated in the plans for your home.

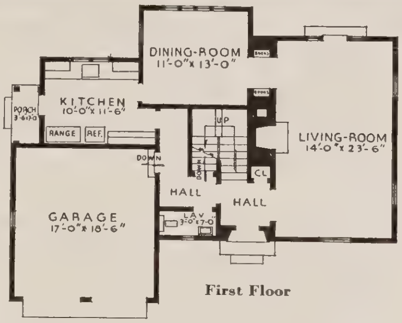

Second Floor



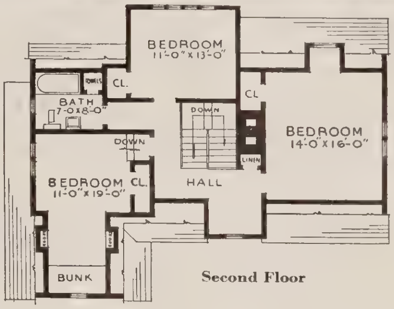




Frank Jacobs



First Floor



Second Floor

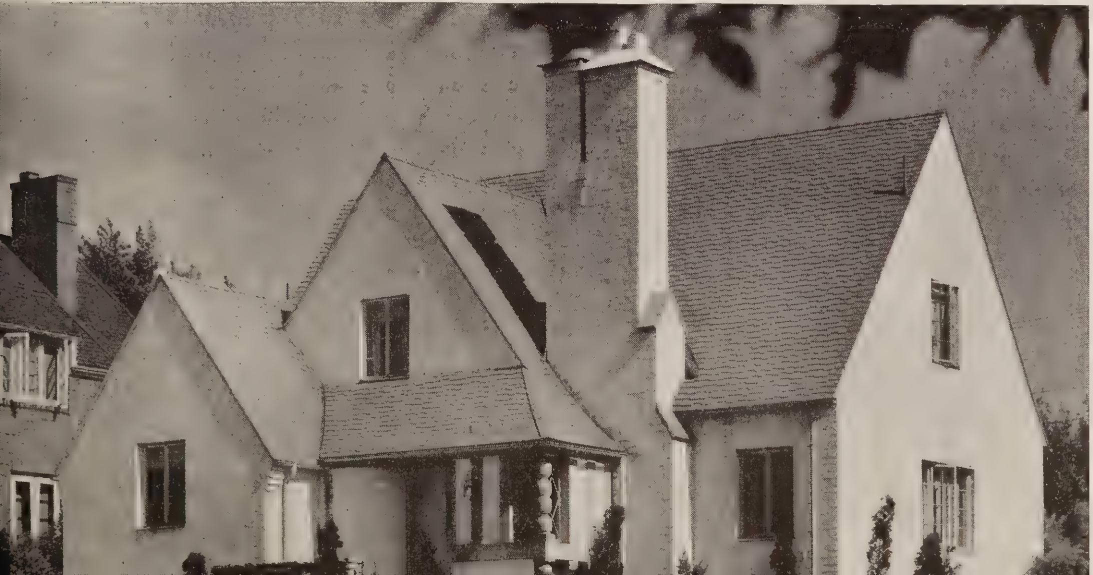
New England in the Northwest

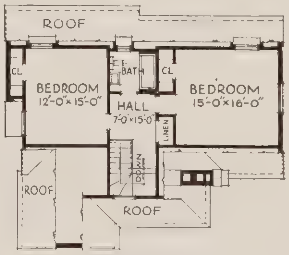
FOR a 67- x 130-foot lot in Hugh H. Russell's Development of Blue Ridge, near Seattle, Washington, Architect George Wellington Stoddard planned the New England Colonial house above to sell for $6,800 complete. It's white with green roof and green shutters, and exterior wall finish is of 16-inch Red Cedar shingles and vertical cedar boards. Full-length shutters at the view window in the living-room add height to the exterior appearance of the first floor, and there is a Dutch door to the rear yard at the end of the living-room. Built-in bookshelves line the passageway between living- and dining-rooms to the depth of the fireplace, and this arrangement allows a coat closet off the front hall. There is a full basement, with playroom area, laundry, and air-conditioning plant complete with the exception of cooling.

Of Cement Block, Painted White

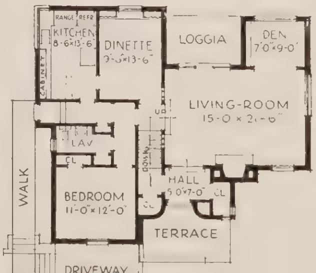
MODERN, RUGGED, and charming is the home of the Wendell W. Monroes, Salt Lake City, Utah, pictured below. It's built on a street that slopes off to the right. It belongs precisely where it is, for the architect, Lorenzo S. Young, compensated for the big house to the left and the sloping lot by placing the basement garage on the high side and the living-room and front entrance on the low side at a level below that of the rest of the house. Exterior walls are of cement block, painted white. Trim is yellow. Rough timber around the front entrance and garage, and the garage and front doors, is stained brown and silvered with white lead. Steel sash are used thruout, and the porch and walks are flagstone. The living-room ceiling has native wood beams and, with the hall and den, are done in knotty pine, painted old ivory. A dinette of ample size substitutes for a large dining-room or breakfast room to conserve floor space.

D. F. Davis



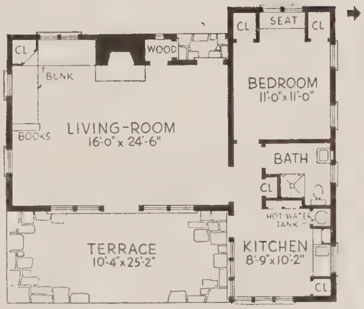


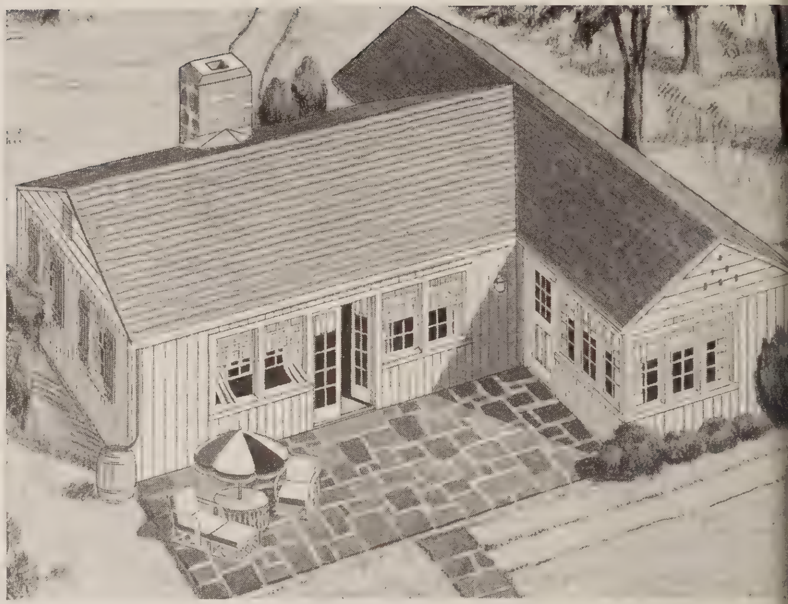
Second Floor



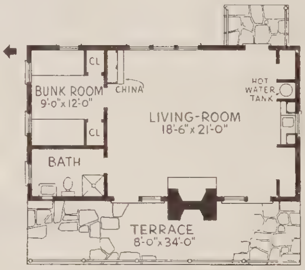
Cottages and Cabins

THESE COTTAGES are compact as apartments—complete with showers, refrigerators, ranges, and built-in storage units for books and linens. You can build them yourself, and the working plans for the two cottages at the top of the page are available BY NUMBER at $2 a set.





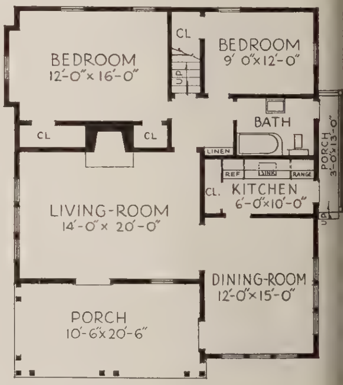
DESIGN 2-B. Twenty-one windows and four doors make this cottage breezy and light. Living-room and kitchen are exposed on three sides, the bedroom on two. The big living-room can house a "rough-house" at one end, a bridge game at the other.

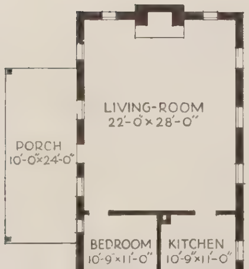


DESIGN 1-B. It's of simplest construction, finished with clapboards outside, random-width pine inside. Windows and Dutch doors flank a native-stone fireplace, with door and eight other windows to let in breezes. The double fireplace opens indoors and out. An alcove houses stove, refrigerator, and sink, with cabinets above and closets to right and left; also hot-water storage for the kitchen, and lavatory and shower, in addition.

A Summer Home

FOR THE large family this scheme provides 2 bedrooms and a dining-room which, of course, could be utilized as a bedroom with very slight change. Being close to the water, a separate outside entrance was provided to the bathroom for direct access from the beach. There's plenty of closet space for the bedrooms, and there's a delightful fireplace in the living-room for nights when the air gets cooler than for comfort.



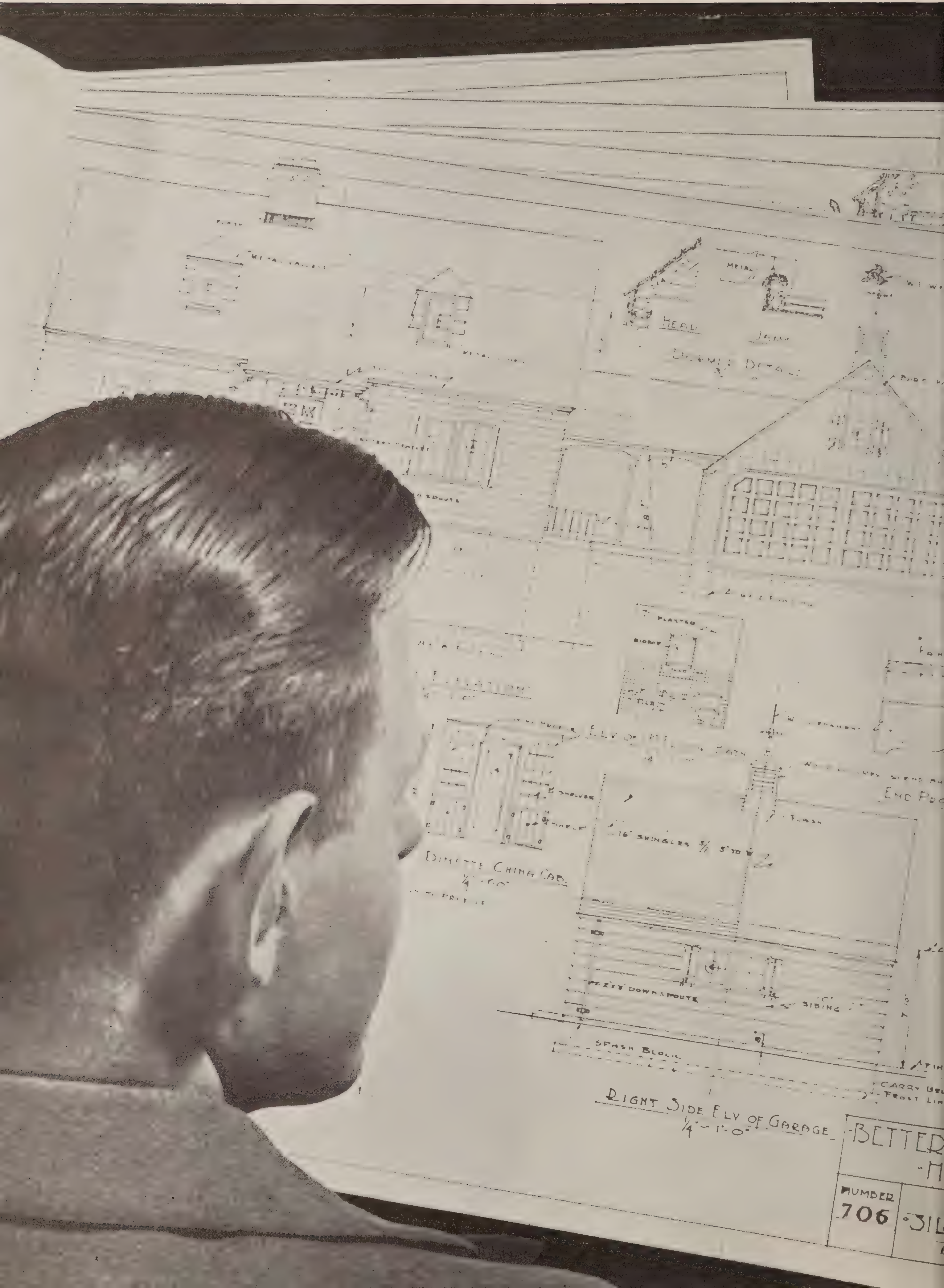


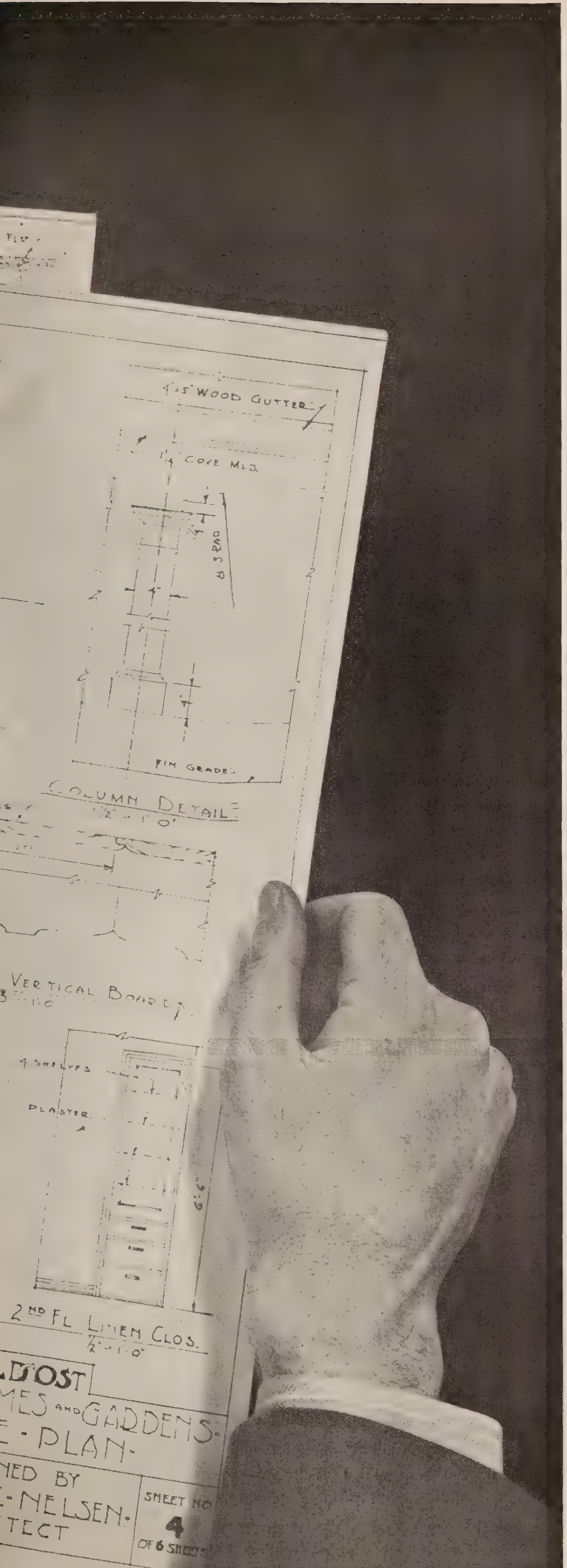
And a Real Log Cabin

IN BUILDING this cabin, first up went studding—sheathed and covered with roofing paper. Steam-peeled logs treated with a preservative were ripped in half, lengthwise, to within two feet of the ends. This replaced siding outside. The other halves of the logs replaced lath and plaster inside. Asphalt paper between sub- and finished floors prevents drafts and

BILDCOST *Gardened* HOME PLANS

Here begins a section picturing and describing 60 gardened homes designed especially for *Better Homes & Gardens* families, and for which Bildcost working drawings are available


HEAD
DORMER DETAIL
ELEVATION
DINETTE CHINA CAB.
1/4"-1'-0"
16" SHINGLES
SIDING
SPLASH BLOCK
RIGHT SIDE ELV OF GARAGE
1/4"-1'-0"
BETTER
NUMBER
706



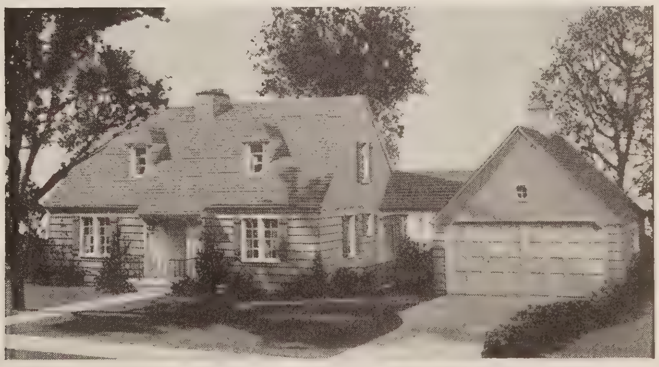
Here's What You Get . . . .

On THIS page we show you one of the sheets that make up the *working drawings* for a Bildcost Gardened Home. It is typical of what you get when you buy a set of Bildcost Gardened-Home working drawings.

The working drawings on this page are for Bildcost Home No. 706, shown on page 102. See the next page for complete explanation of the Bildcost Plan.

These drawings are a new, modern type—easier to read and use, and with a lighter background more suitable for the contractor's notations and specifications in either pencil or ink. They have replaced the old-fashioned, hard-to-read blueprints, and are approved by the Federal Housing Administration. *Better Homes & Gardens* takes pride in the fact that its Bildcost Plan department was one of the first in the nation to adopt this up-to-date type of working drawing.

With the working plans you buy from *Better Homes & Gardens* you also receive the Bildcost Gardened-Home *Specification Form*. This form is the basis for a legal contract between you and your contractor and insures your getting the quality materials specified. You will also receive a copy of the Contract Agreement. Signed by your builder, it's his legally binding promise to build your home exactly as specified and for the amount agreed on; it therefore protects you, insures the quality construction of your home, and safeguards your interests every step of the way. Turn now to the complete explanation.



Above is pictured the Bildcost Gardened Home—No. 706—represented by the working-drawings sample shown at left

Better Homes & Gardens' BILDCOST Gardened-Home Plan

WHAT IT IS and HOW TO USE IT

THE Better Homes & Gardens' Bildcost Gardened-Home Plan is a complete home-building service available from Better Homes & Gardens only. The Bildcost Plan was originated by the magazine in January, 1932, as a further service to home-loving people who want the homes they build not only soundly constructed but architecturally pleasing. Bildcost is also fully protected by copyright.

The success of Better Homes & Gardens' Bildcost Home Plan can only be measured by the number of satisfied home-owners. Since the plan was first announced, hundreds of requests concerning each of the Bildcost Homes described in the magazine have been received by the editors.

Why Plan Established

IN THE magazine we have often told you approximately what a home we pictured had cost to build in the particular city in which it was built. But building-material and labor costs vary widely, not only from section to section, but also from city to city. And so costs based on vague geographical areas, such as "the East" or "the Southern States," or on cities themselves, published by any magazine, are of little value to you.

What you want to know is exactly what a home design that strikes your fancy will cost to build in your own city. The second part of *Better Homes & Gardens'* Bildcost Gardened-Home Plan, explained in the next paragraph, enables you to do just that.

Your Cost-Finder—*The List of Materials*

For each Bildcost Gardened Home you see in this book and in the magazine itself, *Better Homes & Gardens* publishes a List of Materials.

If you will turn thru this section's pages you will see that each Bildcost Home bears a number; for instance, the one on page 119 carries the number "909." So if you like this particular home and want to find out the cost to build it in your city and will write to us and inclose six cents, we'll send you the List of Materials for Bildcost Home No. 909. This specifies what materials you will need.

Then you take this List of Materials to an architect, a building-material dealer, or a contractor. Using it as a guide, with his authoritative experience in material and labor costs, he will be able to figure for you exactly what it will *cost to build* this home in your city. ("Bildcost" is a coined word on which the Meredith Publishing Company owns the copyright; it means "cost to build"; hence, "bildcost.")

An architect, building-material dealer, or contractor will be glad to give you these costs to build. When he knows exactly how much material it takes to build the home, it is not difficult for him to estimate the cost. He wants to serve you in every way possible, for he is a well-established businessman in your city. It is good business for him and good business for you. You need not hesitate to take the List of Materials to him.

Working Drawings

When the List of Materials is properly filled out and the totals added, you will have as accurate an estimate as you can get of the cost to build the home. Suppose, then, that you decide to go ahead and build it. Fine! *Better Homes & Gardens* then has the third, fourth, and fifth parts of the Bildcost Gardened-Home Plan to offer you. The third part is the working plans for this home you want.

One sheet of typical Bildcost working plans is reproduced on the preceding pages. They can be obtained from us for the nominal fee of $5 for the first set, which is not only for the plans themselves but for *the right* to build the home. When you pay for the first set, you are privileged to buy additional sets for $2.50 each. For all practicable purposes three sets are necessary—one for the architect who supervises the building, one for the contractor, and one for you.

Bildcost working plans are not, as you can see, mere sketches or reduced drawings. They are complete, accurate, thoro architect's drawings—as complete as the best architects can make them—from which your builder or contractor can build your home and on which your architect can check.

They eliminate any sort of guesswork and thus save time and money. If you retained an architect to design a home especially for you, such plans as these would cost you anywhere from $200 to $300, and that's a fair price for his services.

Specification Form

This form is the fourth part of the Bildcost Gardened-Home Plan and is sent to you with the working plans. It is a written explanation of the working plans. In it are specified the quality of the materials which are to be used in building your home and the kind of workmanship necessary to insure sound construction. It forces all contractors to bid upon materials and workmanship of a given standard. It is, moreover, the basis for a legal contract between you and your contractor.

This agreement will be recognized in court should the occasion arise. In it your interest and personal liability are protected.

Contract Agreement

This is the fifth part of *Better Homes & Gardens'* Bildcost Gardened-Home Plan. It is a contract blank which we send you with the working plans and specifications and is to be signed by you and the contractor. It provides that your home shall be built according to the plans and specifications and for the sum agreed upon. Signed by your builder, it is legally his binding promise to build your home exactly as specified and therefore does what we want it to do—protects you, insures the sound and architecturally right construction of your home, safeguards your interests every step of the way.

Since the building of a home is usually considered a lifetime investment, not only in money but in the thought and the care that go into planning a home, every possible safeguard should be taken to avoid any dissatisfaction or disappointment when your home is completed.

How to Order

When you find the plan you like in this Bildcost Gardened-Home Plan Section or in the magazine itself, look for its number. It will appear plainly on the page or pages on which the plan is reproduced.

If the number, for instance, is 810 and you want the List of Materials for it, merely write to us (or use the handy coupon on the last page), saying you want the List of Materials for Bildcost Gardened-Home Plan No. 810, and inclose six cents with your request. You will receive the list promptly.

Then afterward, if you want the working plans for Bildcost Plan No. 810, merely write again, say you want the working plans for Bildcost Gardened-Home Plan No. 810, and inclose the fee to pay for them. We'll send you not only the plans but the specification form and the contract agreement.

We send the plans to you for $5 for the first set, which isn't only for the plans themselves, but also for the *right* to build the home. When you pay for the first set you're privileged to buy additional sets for $2.50 each. For all practicable purposes three sets are necessary—one for the architect who supervises the building, one for the contractor, and one for you—so you would send $10. *Be sure to specify the number of the working drawings.*

Garage Plans Included

When a Bildcost Gardened Home does not have an attached garage, we send you with the home working plans detailed plans also for a detached garage, the architecture of which will harmonize with the architecture of the home. For these we make no additional charge.

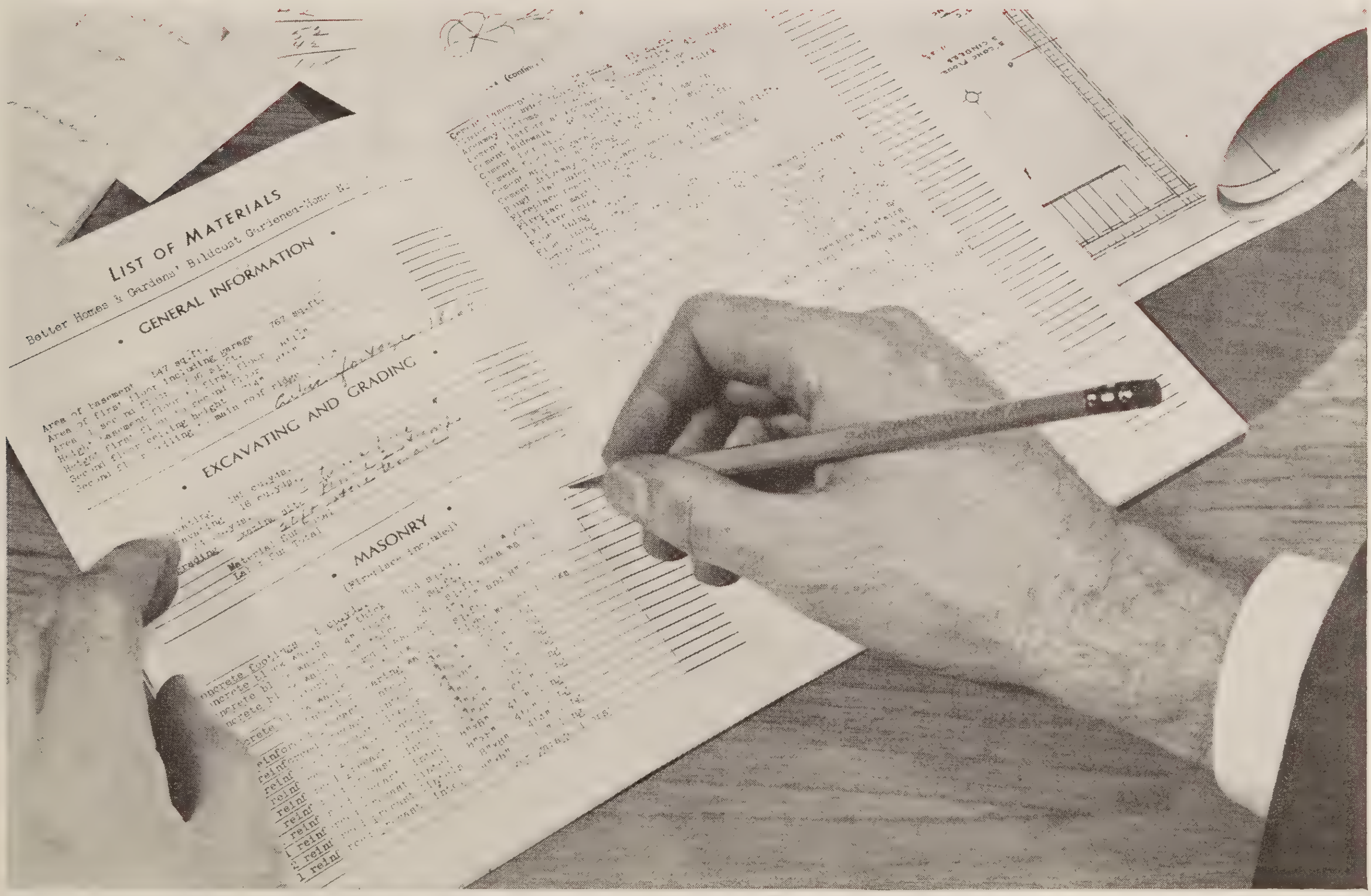
Send Us Snapshots

When you've completed your Bildcost Gardened Home and have it planted, we shall be grateful to you, and you will help us a great deal in editing *Better Homes & Gardens* for you and in preparing future Bildcost Gardened-Home Plans, if you'll send us four snapshots (each showing one side of your completed home) and tell us in a letter accompanying the pictures:

1. Whether you retained an architect to supervise the construction of your home. (We strongly urge you to do so. Follow the suggestions given in the front of the book for selecting a *good* architect. A good architect will not only oftentimes save you money; he will also insure your getting sound construction and good design as specified in the plans and specifications and as called for in the contract agreement.)
2. Approximately how much the home cost to build in your city.
3. Whether you made changes in the working plans or built the home exactly as specified.

When you order Bildcost material, address *Better Homes & Gardens*, Des Moines, Iowa. (Use convenient coupon on last page.) Remember that we of *Better Homes & Gardens* are ever ready to help you with your home and garden aspirations. As a member of our large *Better Homes & Gardens* family, it is your privilege to ask our help and our pleasure to be of service to you.

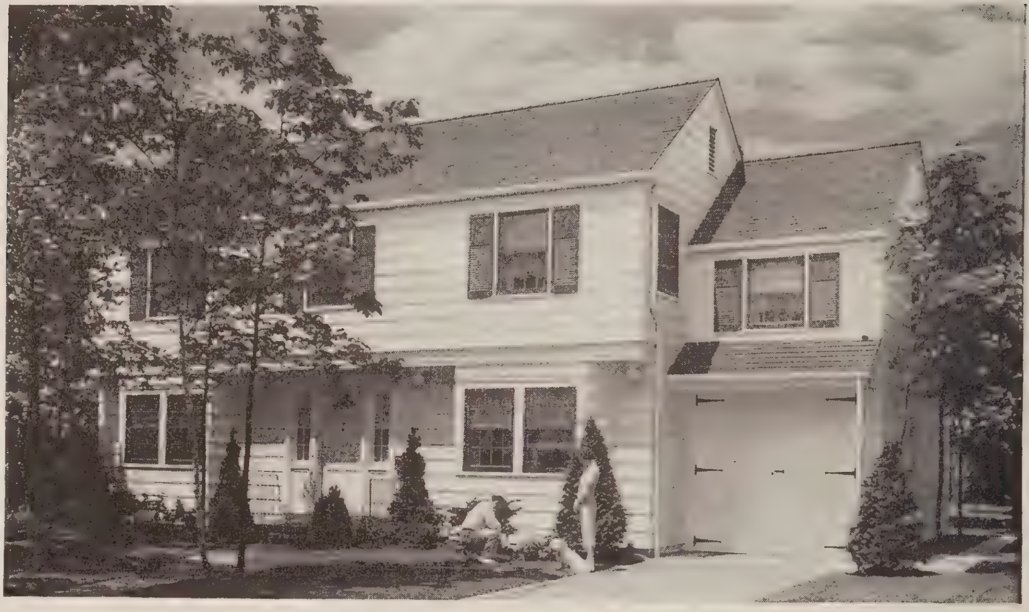
The Editors



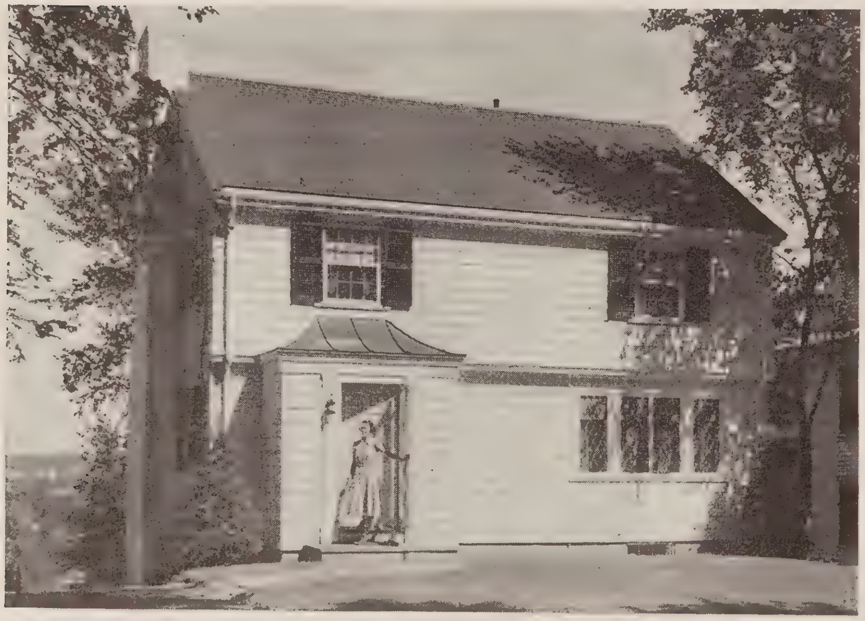
Using the List of Materials as a guide and cost-finder, you can figure exactly what it will cost to build your home

These Were Built From Bildcost

HERE are only seven out of thousands of beautiful homes which have been built from *Better Homes & Gardens* Bildcost Plans. Bildcost enables you to estimate in advance exactly how much it will cost you to build a particular Bildcost Gardened Home in your community. Working drawings cost but $5 for the first set, and $2.50 for each additional set.

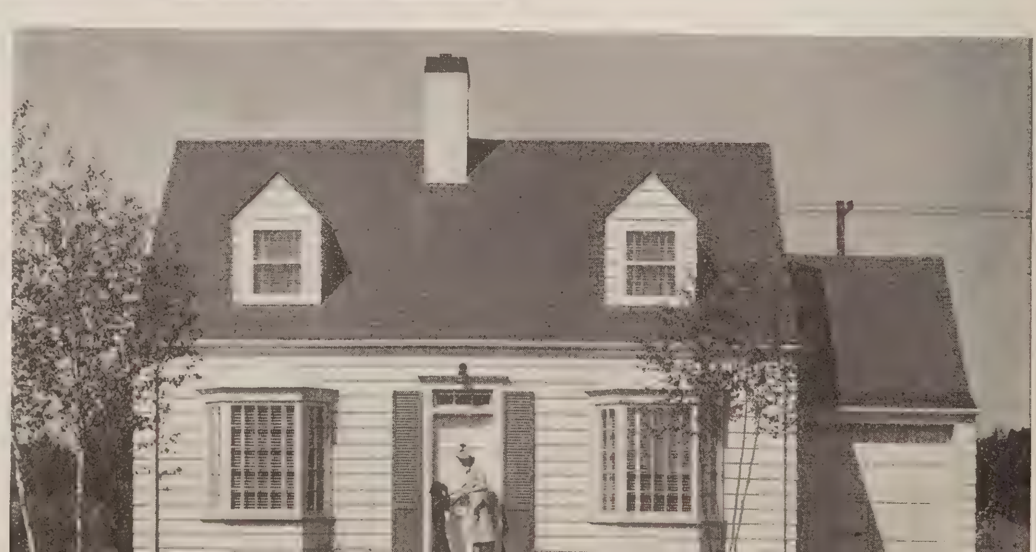


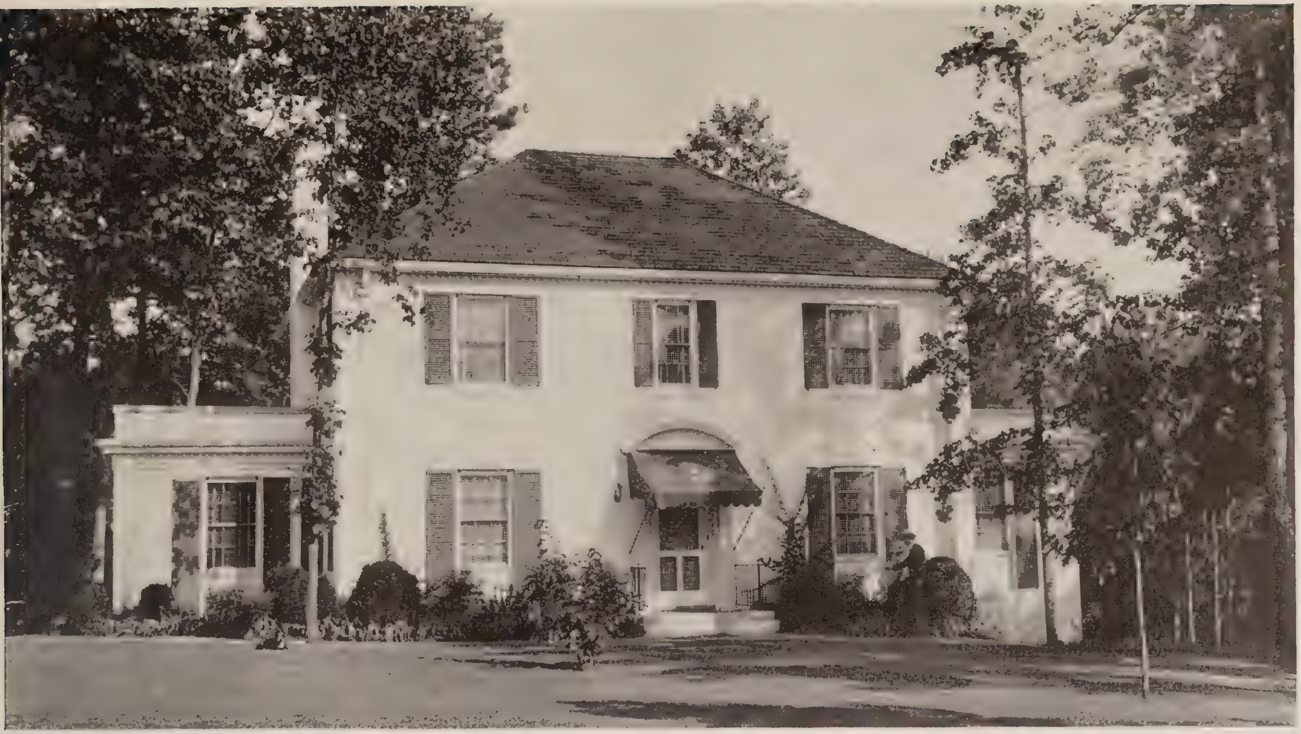
↑ This is the home of Mr. and Mrs. Wayne M. Hall, Rockville Centre, New York. It was built from *Better Homes & Gardens*' Bildcost Gardened-Home Plan No. 710 by Jaeger Bros. Builders, of Rockville Centre.

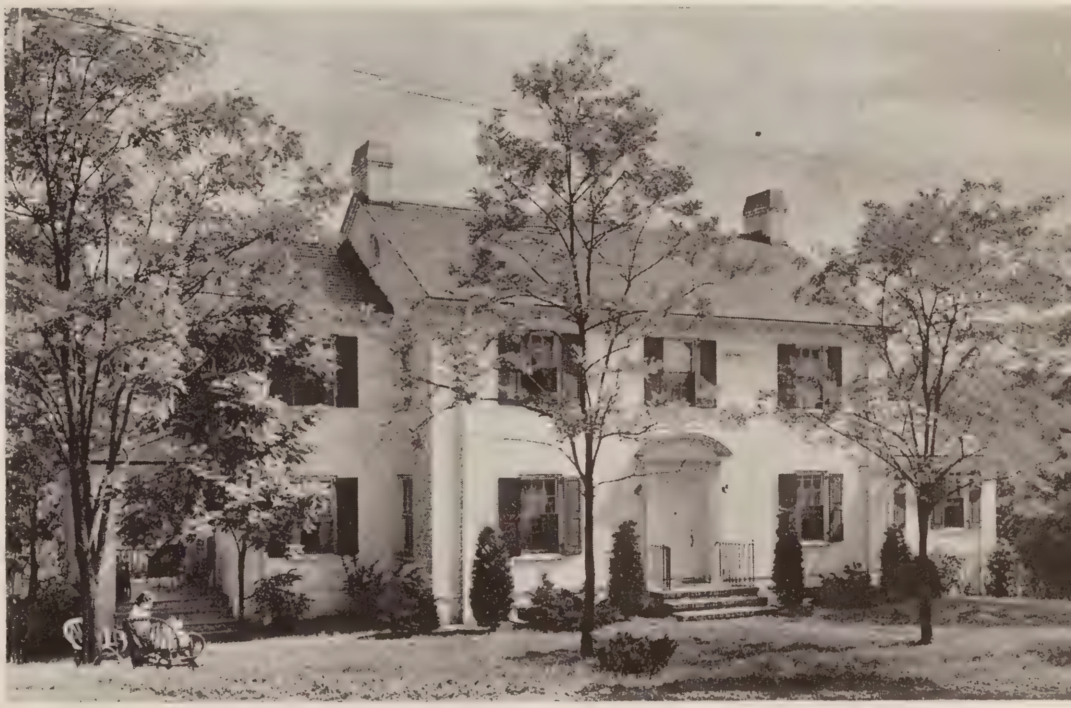


← This Newton, Massachusetts, home came from Theodore Whitehead Davis's Bildcost Plan No. 708, and is owned by Mr. and Mrs. Dana Parks, Jr. Planting, being supervised by a landscape architect, had not yet been completed when this picture was taken

Bildcost Plan No. 702 has been → a popular one, and this execution of it is found in Hammond, Indiana. Mr. and Mrs. H. M. Beiriger are the owners. You'll find this, along with some fifty other outstanding home plans, on the page; that follow this.

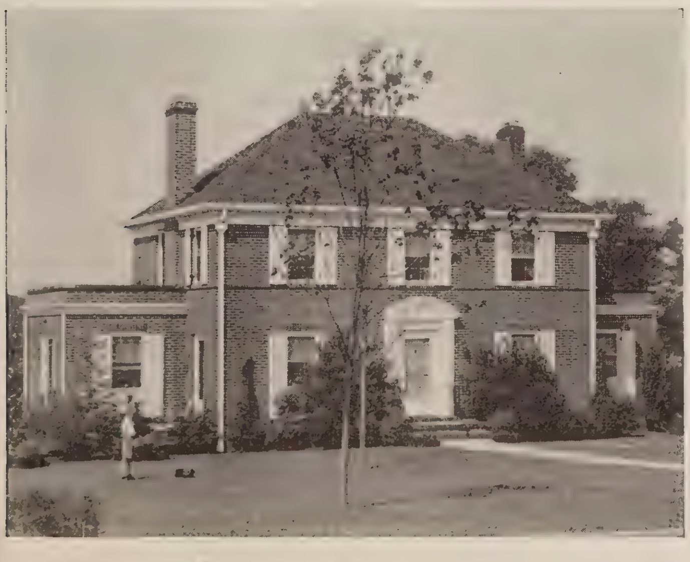


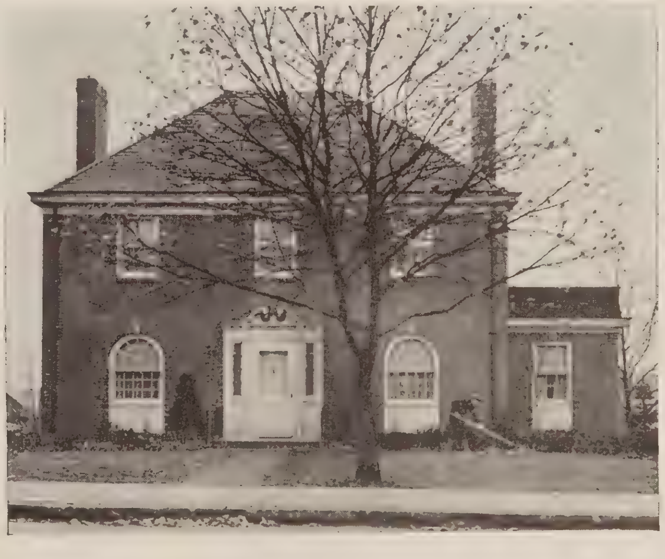




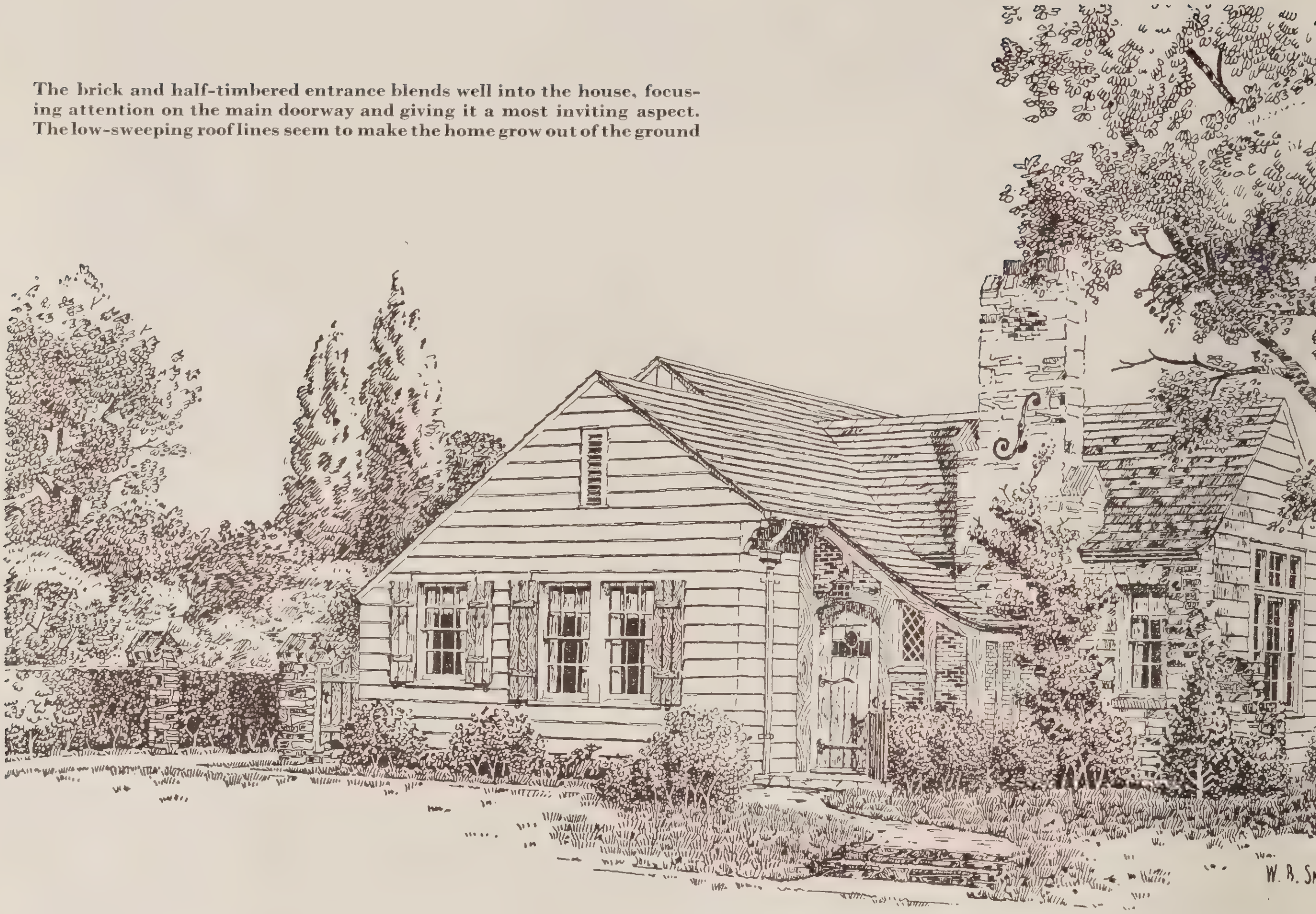
These four homes are from the same plan—Bildcost No. 504—which appeared first in *Better Homes & Gardens* for April, 1935, but which has appeared more and more frequently ever since, in form of brick and stone and wood, in city and hamlet all over the nation.

At top is the white-walled version built by Mr. and Mrs. H. B. Lackey, Atlanta, Georgia, and now owned by Mr. and Mrs. J. M. Wilson. Right, in white-painted brick, it is found in Roanoke, Virginia, home of Dr. and Mrs. Thomas N. Spessard—a gable-roof version. Left, below, using the hip roof and uniform-color brick, is Bildcost No. 504 as Mr. and Mrs. W. C. Tune, Shelbyville, Tennessee, built it. In Pittsburgh, Pennsylvania, Mrs. Richard Owen and Katherine Virginia Owen are owners of the more individual variation of the original Georgian theme (at lower right).



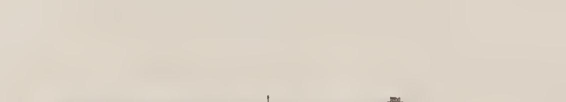


The brick and half-timbered entrance blends well into the house, focusing attention on the main doorway and giving it a most inviting aspect. The low-sweeping roof lines seem to make the home grow out of the ground



A Home of Dreams Come True

This beautiful little Bildcost Gardened Home successfully combines the appeal and low cost of the small house with the comforts and the accommodations of the larger structure



Left Side View

Bildcost Gardened-Home Plan No. 204

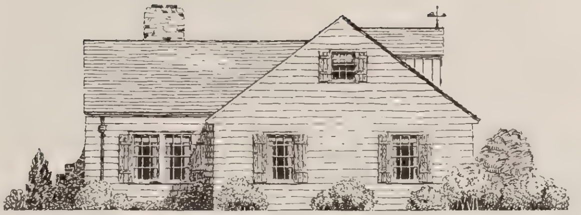
WE PRESENT on these pages a small home which blends perfectly the essential elements of a fine design; it has beauty of line, a well-balanced use of exterior materials, and a sound and practical interior arrangement.

One is struck immediately with its air of domesticity and the promise of comfortable living inside. There is no straining for picturesque effects, yet the whole scheme is most original and attractive; in other words, this design is the ideal conception of a perfect home for most of us and is the result of an intelligent and artistic use of materials, which adds the final touch that makes a house a home.

THE low-sweeping roof lines seem to make the home grow out of the ground. The skill with which all the lines are placed creates this impression, as your eye, in passing over them, is brought down to the ground—a natural ending place—at nearly every point. The sense of shelter that is every home's main purpose is obtained by making the roof areas large and steep enough to dominate the low, well-proportioned side walls.

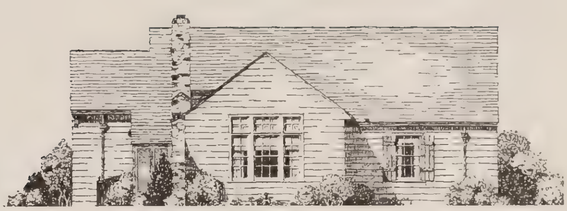
The brick and half-timbered entrance blends well into the house, focusing attention on the main doorway, and giving it a most inviting aspect.

In direct contrast is the rough fieldstone-fireplace chimney extending to the end of



Rear View

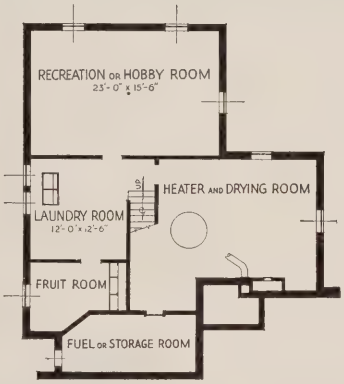
The exterior walls may be faced with either broad, beveled wood siding or with stained-wood shingles with equally effective results. Wood siding is used here



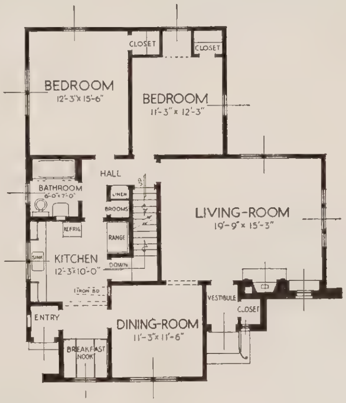
Right Side View

Note in the side and rear views above and to left how the sense of shelter is obtained by making the roof areas dominate the well-proportioned side walls

DESIGNED BY ARCHITECT WILLARD B. SMITH, JR.



Basement



First Floor

Seldom is a home so attractively and conveniently arranged as this. The living-room is large, with high windows in the end and the ceiling vaulted, keeping the height in good proportion to the size of the room. The wood-paneled fireplace and recessed seat furnish an interesting detail. The dining-room is not large but will amply take care of six. The rooms in general are planned so that there is direct communication between the different parts of the home, cutting steps to a minimum

the living-room wing and ending with a graceful curve, making it appear a part of the design instead of an afterthought. On the opposite side a rough-hewn wood fence is an interesting detail and serves the purpose of screening the well-placed service door from the living-room.

The exterior walls may be faced with either broad, beveled wood siding or with stained-wood shingles with equally effective results. A careful study of the rear and side views will reveal how well the home appears from every angle. The large-transomed living-room window adds great interest to the gable in which it is placed, and the use of rough-timbered blinds gives excellent and unusual character to the other side.

FOR the roof a wide variety of shingles is available and appropriate. Wooden ones, stained, preferably, in a range of shades of one color would be excellent, and heavy composition, asbestos, or slate would be equally attractive. Whatever the material used, the splendid lines of the roof's design would bring out the best of its qualities.

In its general arrangement the plan follows a very practical scheme, one which allows the very best utilization of the whole building site. The service portion of the home is accessible on one side, near the front, instead of at the rear, as is so often the case; and this is done at no sacrifice of sightliness or convenience of interior arrangement.

Thus the space behind the home is left available for the development of a garden; and a driveway straight thru to a detached or semi-attached garage is possible.

THE good qualities of the exterior are present in every part of the floor plan. A complete living unit on one floor is laid out in an unusual but practical way. The rooms in general are planned so that direct communication can be had between the different parts, enabling the homemaker to cut her steps to a minimum.

The living-room is as large as you have always wanted it, with high windows in the end and the ceiling vaulted with heavy exposed rafters spaced wide apart, keeping the height in good proportion to the ample size of the room.

The wood-paneled fireplace and recessed seat furnish an extremely interesting detail. A vestibule with a large coat closet removes it from direct contact with the outside, doing away with cold drafts and unnecessary cleaning.

The dining-room is not large but will amply take care of six. It will probably be used only occasionally, for the inviting breakfast nook, with its cheerful outlook toward the front, will be the more practicable place for most all the family's informal meals.

The kitchen has been provided with every convenience and efficiently laid out to make the duties in it a pleasure. It is but a step from this room to any room in the home, and it has the added convenience of a well-placed service door.

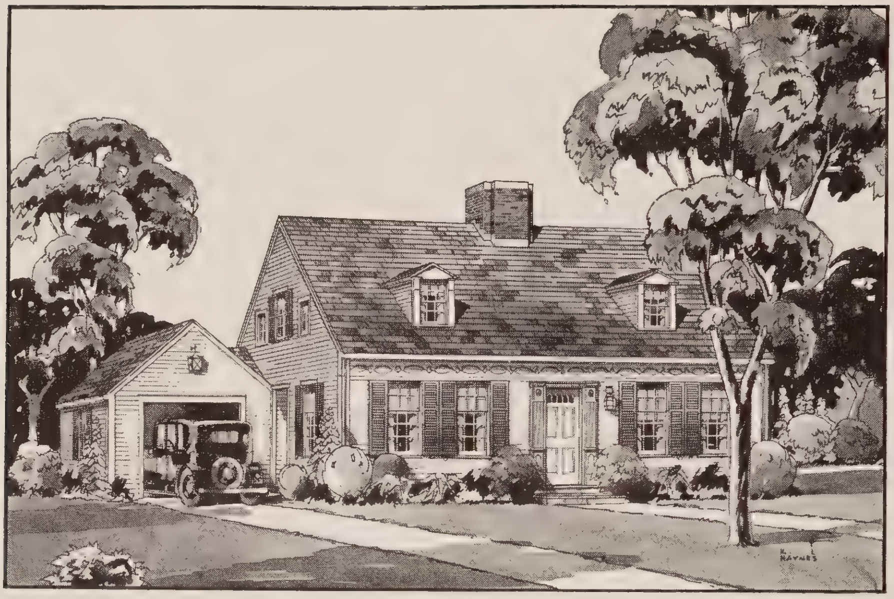
THE sleeping quarters are completely separated from the living quarters to provide the maximum in privacy. Both bedrooms are large and cross-ventilated, with no crowding of furniture.

The basement has the usual fruit cellar, laundry, and heating room, and the added feature of a large room under the rear bedrooms for use as a hobby or recreation room.

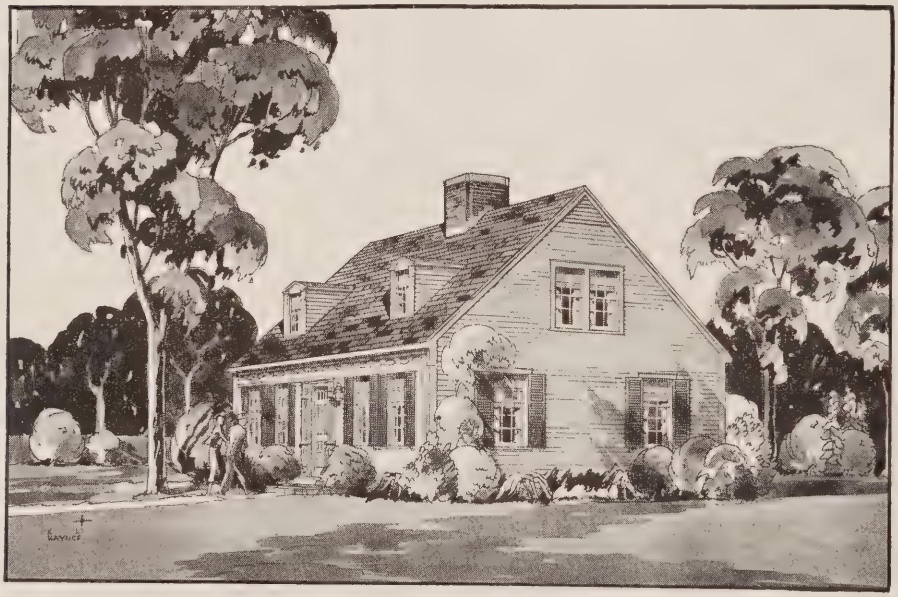
This home was especially designed for our Bildcost Series, a service that has revolutionized the building of homes for persons in all walks of life. Its design is of the best, and the materials specified are especially adapted to the performance expected of them in the design. A Bildcost Plan assures that you know from the start what you'll have when the home is completed.

● How much will it cost you to build this home in your own community? See introductory pages for information about how to estimate it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering List of Materials and working drawings, will be found on the last page.

Bildcost Gardened-Home Plan No. 204



The first-floor arrangement is flexible, providing a study by combining the living- and dining-rooms. The upstairs bedrooms are spacious, for minimum space is required for stairs



Here the view from the right foreground reveals the simplicity and balance of the exterior design. Delicate dormer windows break the large roof area. The fat chimney hints solidarity

The rear of the house is similar to and quite as attractive as the front. The planting is easy to do

The side, either with or without the attached garage, is well balanced and most interesting

For Spacious Living

Here's a small home with large rooms

It fits comfortably on a 50-foot lot

Designed by Theodore Whitehead Davis, Architect

THERE is something so pleasant about the low roof lines and general proportions of this Cape Cod gardened cottage that it requires only the simplest planting to make it appear completely at home in almost any landscape in America, whether that of the scrubby, flat seacoast where the type originated or one of lofty trees and rolling country.

The cottage can be built in city and town just as readily, for it requires only a 50-foot lot if it is placed with the ridge parallel to the street, or even a 40-foot lot if it is placed with its gable end to the street.

The doorway is one of the most arresting features of the exterior. It is ornamented with pilasters, fluted above their high base and capped with a rosette. The door itself is paneled and ornamented with a row of tiny circle-headed lights. Should you mount a brass knocker upon it and light your way to it at night with a ship's lantern, you will do much to capture the full picturesque possibilities of the home.

NARROW white clapboards are suggested for the walls, but wide ones may be used on the gable ends to give variety to the wall texture. Shingles, either stained or white, may be used in the same manner as the clapboards. If you desire an antique effect, you may use hand-split shingles, the white ones being particularly charming.

For the roof shingles, wood or asbestos of the kind that simulates wood should be used. They should be gray, dark at the eaves, and fading as they near the ridge.

The interesting and sturdily designed chimney is painted white with a black boot top. Because it is inclosed, there is little heat loss. For the same reason, it is easy to make water-tight, and most economical to build, there being no finished brickwork to do below the roof.

If the detached garage is preferred, the design above will harmonize with the cottage

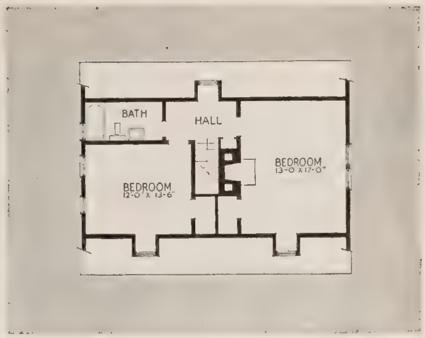
The plan has been so contrived as to achieve large rooms with cross-ventilation in a small area. To conserve space for rooms, the halls have been reduced to minimum size. The entrance hall, however, affords space for a coat closet and telephone cabinet. There is an inviting window seat below the dormer in the upstairs hall, and the linen closet has been tucked into the wall by the master's bedroom.

THE white-wainscoted living-room, with its windows on three sides, is a cheery place for the family to gather. The simple fireplace, painted white to match the woodwork, makes a focal point about which to group furniture. A door at the rear leads directly from the dining end to the terrace at the back of the house.

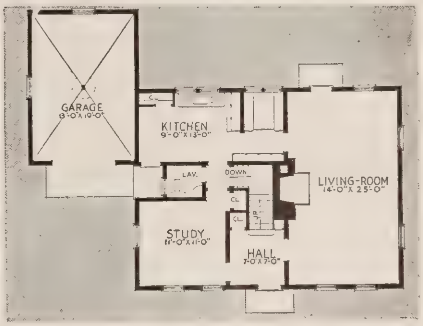
The study is an all-purpose room. If you wish, the wall space allowed for bookshelves can be used to accommodate a bedroom suite and the room turned into a guest room with the little lavatory private to it. It can also be used as a breakfast room and its closet fitted with shelves to hold dishes.

The bathroom, lavatory, kitchen, and laundry have been placed in one corner of the house, removed as far as possible from the living quarters. In this way all water piping has been concentrated and the initial cost, as well as the upkeep, will be very low.

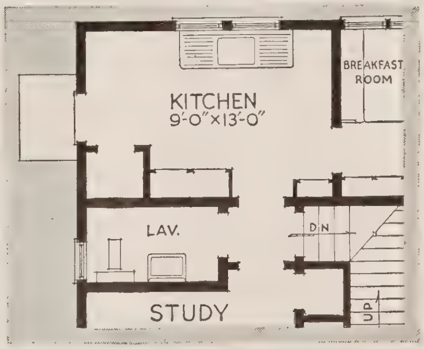
AS WITH all *Better Homes & Gardens* Bildcost Gardened Homes, this was designed by a recognized architect, and its plan and construction are fundamentally correct. *Better Homes & Gardens* recommends that when building or remodeling any home, you be sure to consult with a recognized architect, for, instead of costing you money, he will save it for you and will insure that you get, in addition to good design, a home that will be sound and of excellent construction. The small proportion of his fee to the actual cost of the construction is well worth insuring satisfaction with all features with which we can be sure only your architect will be familiar. The architect will be able to determine quickly whether or not the plan is fundamentally correct, whether or not materials to be used are in conformity with the design of the home; and his knowledge of good construction, as well as of bad, will insure that your home will be properly built. And his supervision of the building of the home, or of its remodeling, will relieve you of a great responsibility that perhaps would be impossible for you to assume personally.



Second Floor



First Floor



Alternate back-door plan

● How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. Bildcost Gardened-Home Plans give you exactly what you would expect to have on reading the descriptions of the homes that are given in this section of the Building Book, at a cost that can be accurately determined by your contractor, building-material dealer, or architect. They include blueprints, contract form, and a complete List of Materials and work that will be required, so that all costs necessary to the proper completion of the home may be accurately determined. A coupon, for your convenience in ordering Lists of Materials and the working drawings, will be found on the last page of this book.

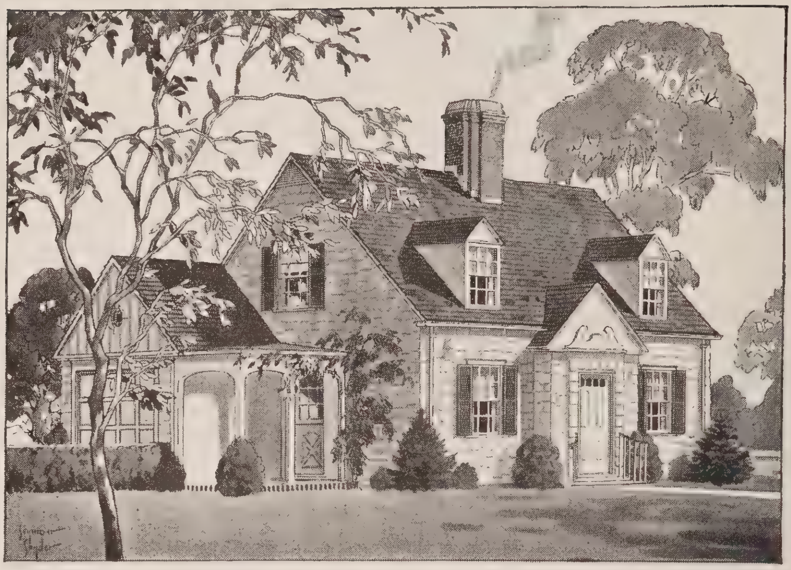
Bildcost Gardened-Home Plan No. 207

To Love and Keep

This charming small home has the refinements of a big home, yet you can build it for a small price

Designed by Stratton O. Hammon

SPECIAL Note: This home can be placed equally well on a corner or inside lot as narrow as 35 feet.



Side View

Rear View

Side View

ENTRANCE hall, large living-room, recreation room, log fireplace, paneled walls, bay windows, attached garage, and numerous little things make a home really a place of joy in which to live. Why accept less when it's only a matter of a little study and thought to achieve them?

This early Connecticut home contains these refinements, yet it's very small and it has been built for as low as $5,000; but present-day materials prices may make it run a little higher.

The exterior walls may be covered with white wood shingles, clapboards, or siding. To add contrast to the materials used, the entrance gable has been stuccoed, which serves also to accentuate the entrance frontispiece. For the same reasons, the walls under the porch have been stuccoed and the gable of the garage wing sheathed in moulded-joint vertical boarding. The weathered-brown shingle roof is broken by the smooth side dormers and the brick chimney painted white with a black band at the top.

Inside the classic front entrance is a hall that boasts a coat closet and two smaller closets. The stair is directly ahead, and the dining-room and living-room openings are to the left and right.

The living-room is well lighted with two windows and a bay. Following the custom of the early Connecticut builders, the fireplace wall is paneled in random-width white pine boarding with moulded joints, and the three outside walls are plastered. The floor is of wide oak boarding, and the ceiling is beamed in oak.

A large fireplace, built to accommodate three-foot logs, is placed on the interior wall of the living-room where one sitting before it will receive light over the shoulders.

The location of the chimney also makes it possible to place the heating plant in a central position and to vent the hood over the kitchen range. It's well known that flues arising in the interior of a home keep warm and therefore draw well.

The dining-room also has a beamed ceiling, and there's a Dutch door that opens onto the brick-paved porch. This porch is easily screened for use for summer dining.

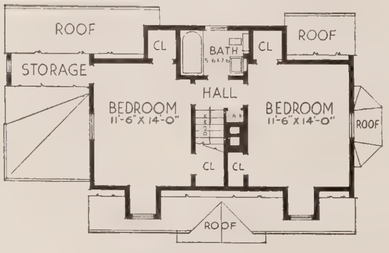
The kitchen is compact but extremely well arranged. The glass door, with a transom over it, and the large window give plenty of light and air. The sink under the window and the six-foot cabinet form an angle that's an efficient arrangement. On the opposite side is a recess for the range, with a vented hood over it; a built-in refrigerator that may be iced from the outside if it's not mechanical; and between these a large closet with a supply cabinet extending over all.

Ascending to the second floor to the small hall, which has a linen closet, one may enter either bedroom. Both have cross-ventilation, two closets, and dressing tables in the dormers. There's a door from the left room into the storage space over the garage. The bathroom is convenient, and in it is a recessed tub with a shower.

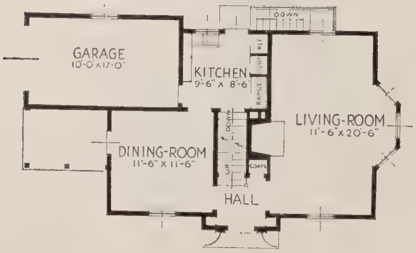
PROPER precaution has been taken to insure comfort in the second-floor rooms, even in the hottest climate. Besides the shingle roof, which is a good insulator, and the air space under it, there are two thicknesses of insulation: one over the rafters and one used as a plaster base. Louvers in each gable and a vent in the chimney remove all possibility of heat. Because of the position of the garage, this home lends itself especially well to a corner lot.

But its unique feature is its easy adaptability to several different types of lots.

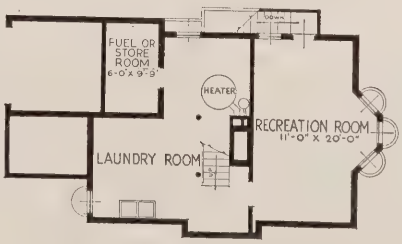
These sketches of the first- and second-floor and basement plans show how compactly and conveniently every detail of this house has been planned



Second Floor



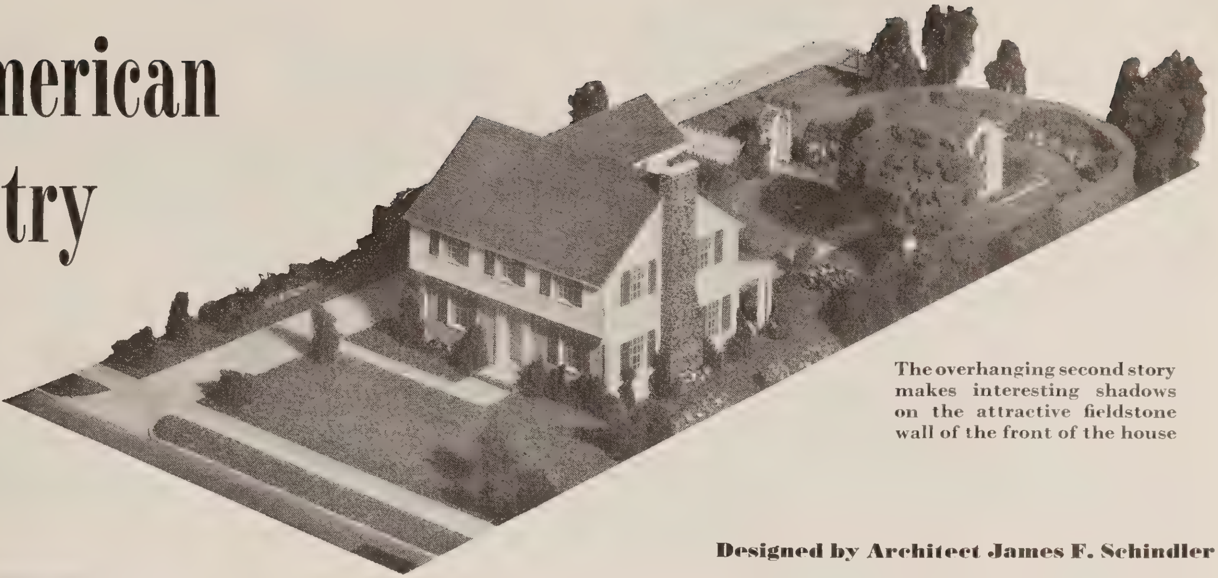
First Floor



Basement

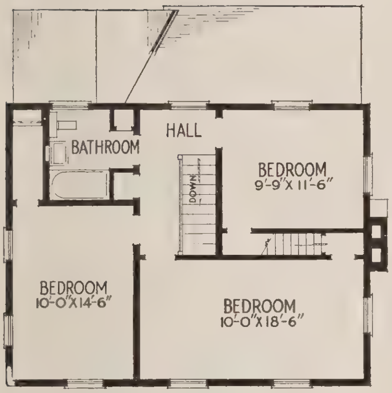
Bildcost Gardened-Home Plan No. 203

Of American Ancestry

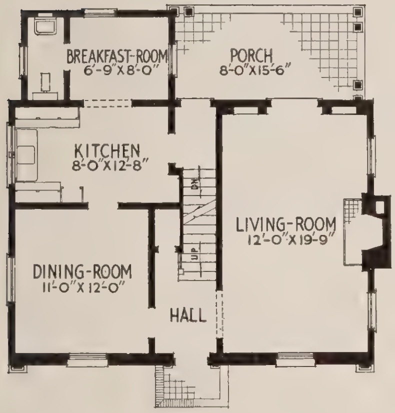


The overhanging second story makes interesting shadows on the attractive fieldstone wall of the front of the house

Designed by Architect James F. Schindler



Second Floor


BREAKFAST-ROOM 6'-9"X8'-0"
PORCH 8'-0"X15'-6"
KITCHEN 8'-0"X12'-8"
DN
UP
LIVING-ROOM 12'-0"X19'-9"
DINING-ROOM 11'-0"X12'-0"
HALL

First Floor

THERE'S appealing charm and distinction in the attractive proportions and simplicity of line of this typically American home. Its general shape follows traditional Colonial lines, and exterior details remove it far from the commonplace box-like houses which are loosely called Colonial.

The fieldstone treatment of the first-floor wall at the front provides an interesting variation in texture from the smooth-finish siding above, and adds a feeling of strength and solidity to the design. The overhanging second story has the practical advantage of providing a foot of additional space in the bedrooms above, and at the same time shelters the entrance doorway. The deep shadows that it casts across the front of the house at the second-floor line add an interesting effect. The exterior colors follow the traditional scheme of white side walls with green roof and shutters.

Inside, the various built-in features and room arrangement give the atmosphere of a real home, planned for beauty and comfort —above all, for convenience. True to the Early American period, the walls of the living-room are covered with paneled and waxed knotty pine.

The wall-spacing of the dining-room permits good furniture arrangement. Walls are formal paneling to three feet above the finished floor, to be decorated in eggshell-finish enamel, with wallpaper on the upper portion of the walls. The breakfast room provides space for table and chairs instead of the usual benches.

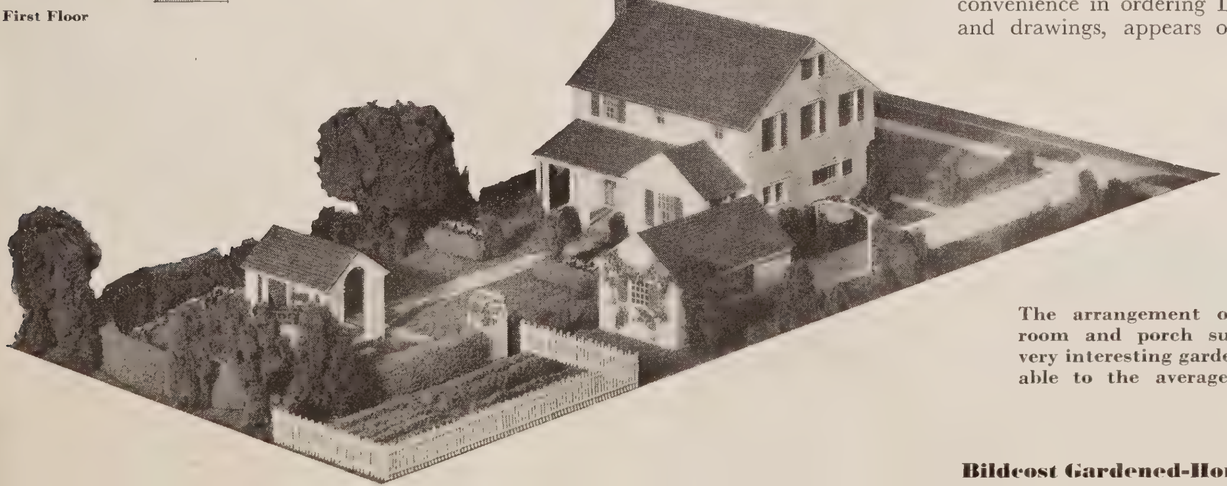
The rooms of the second floor are quite large. The front bedrooms will accommodate twin beds and each room has essential cross-ventilation. Wood trim in the bedrooms should be enameled white or ivory in a satin finish and the walls papered in Colonial block patterns of appropriate colors.

In the bathroom a large accessory closet is provided for towels, washcloths, and a special storage for medicines.

THE garden plan shown was designed by the garden-department editor of *Better Homes & Gardens*. As will be seen in the illustrations, he has taken advantage of the features of the home by providing a vista from the rear porch down the random flagwalk and thru the summerhouse, at the rear of which a tiny formal pool is located in a semicircular garden. Back of the garage is an area to be used for a playground or for clothes-drying, and behind that is a small vegetable garden attractively fenced.

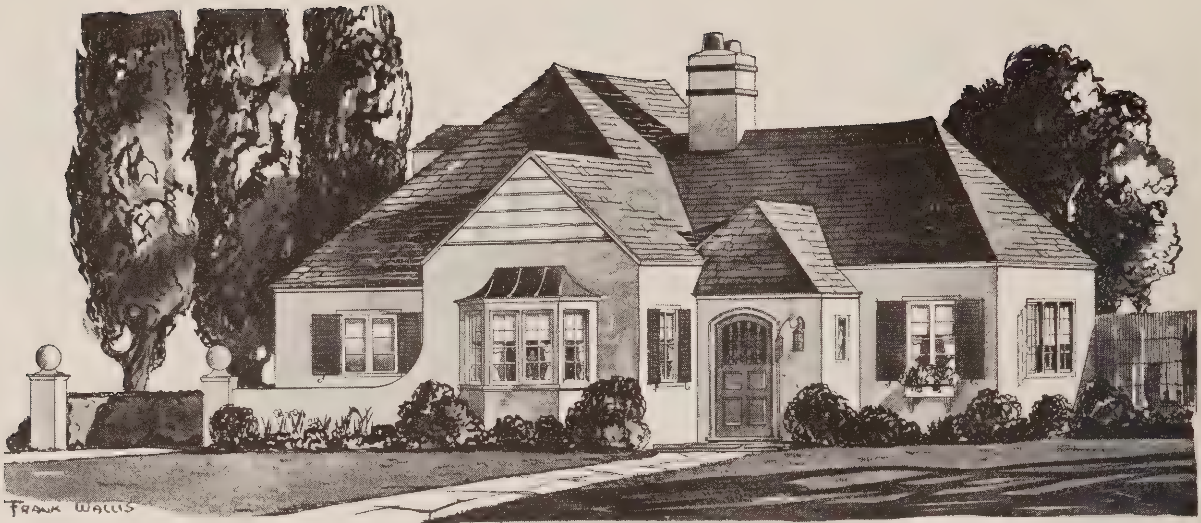
The editors of this book urge that you consult with an architect. Your ultimate result is dependent upon qualified and competent counsel.

- How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering Lists of Materials and drawings, appears on the last page.



The arrangement of living-room and porch suggests a very interesting garden adaptable to the average-size lot

Bildcost Gardened-Home Plan No. 211



Low eavesline, well-proportioned roof, and carefully planned windows and doors give unity and balance to this neat home

For Any Community

Designed for any section of the United States and for any site—level or hilly. It fits easily on a 50-foot lot such as you'll find in most cities

Designed by Architect Frank Wallis

HERE'S the pleasing result of Architect Frank Wallis's desire to create a small home of modern, practical, and economical design that would have an air of individuality and distinction.

In addition, Architect Wallis wanted a plan readily adaptable to a 50-foot lot, with the service entrance and plenty of driveway space completely separated from the main doorway. He has definitely accomplished his purposes in this design, as can readily be seen.

The exterior is made graceful by the low eaves, fine proportions generally, and by the manner in which the living- and dining-room wings build up so well with the main mass of the home. Each elevation of the home is interesting in itself, but especially on the front do we feel a gentle sweep permitting placing the home with equal ease on either hilly ground or a level lot. The snug dormers are carefully designed and placed to avoid harsh profiles on any side.

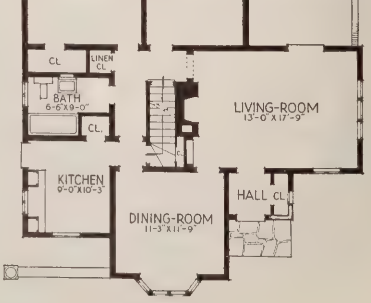
ALTHO the plan indicates just five rooms, with an eye to the family that grows, a stair to the second floor has been provided—from which further development may be logically made. Two rooms and another bath may be finished here.

There's no waste space on the first floor. The centrally located hall serves all five rooms, and the high-ceiling living-room is generous in size. Large French doors open from the living-room to the terrace facing the garden, providing convenient access to outdoor-living. Here's an ideal place for those large, gay umbrellas and the accompanying table and chairs of iron. Outdoor dining and living are much in keeping with the style of the home.

THE bedrooms at the rear of the home enjoy the privacy and quiet of the garden. The compact kitchen is arranged to save many steps. The dining-room is nearly square and centers on a delightful bay window. Casement windows are used thruout to retain charm and character in all its details. For the sake of economy, only part of the basement has been excavated to provide space for the essential heating and plumbing fixtures there. (Basement plan is included in List of Materials and working drawings.)

A variety of materials is delightfully combined on the exterior—the rough cypress siding, cedar shingles or slate roofing, and the stucco—all contributing generously to color and harmony. It would be interesting to tint the stucco a shade slightly off white, but kept warm in tone. Where the plot is surrounded with an abundance of trees and foliage, pink-tinted stucco with black or gray shutters and weather-tone shingles would result in a charming effect.

FURTHER individuality and distinction for the home may be gained thru a variety of choice in design for the front-entrance doorway and the dining-room bay window, as illustrated in the List of Materials. And any of the designs would be equally fitting, for all reflect the best elements of a quiet and refined French byway. With careful study you will find this cottage free from expensive habits, and future generations should find it in as good taste as it is today.



Left Side View

Rear View

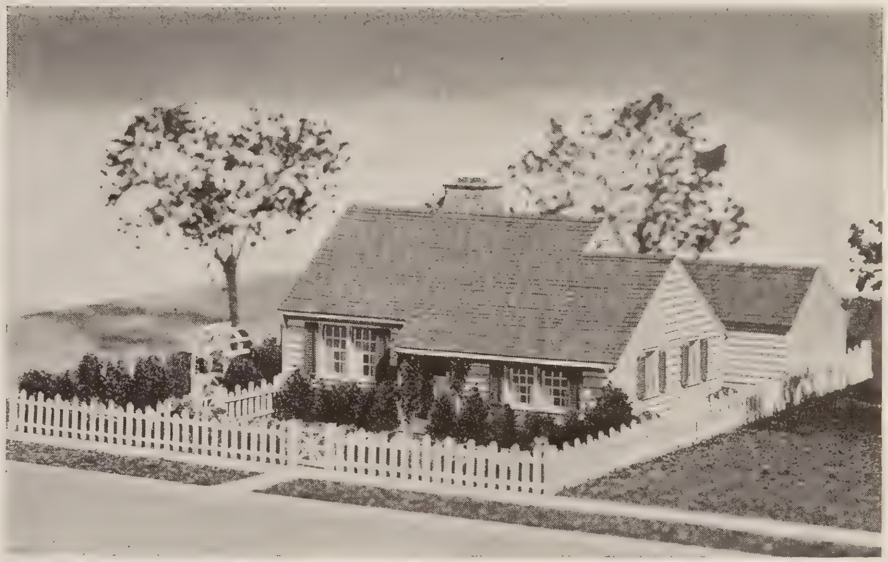
Bildcost Gardened-Home Plan No. 308

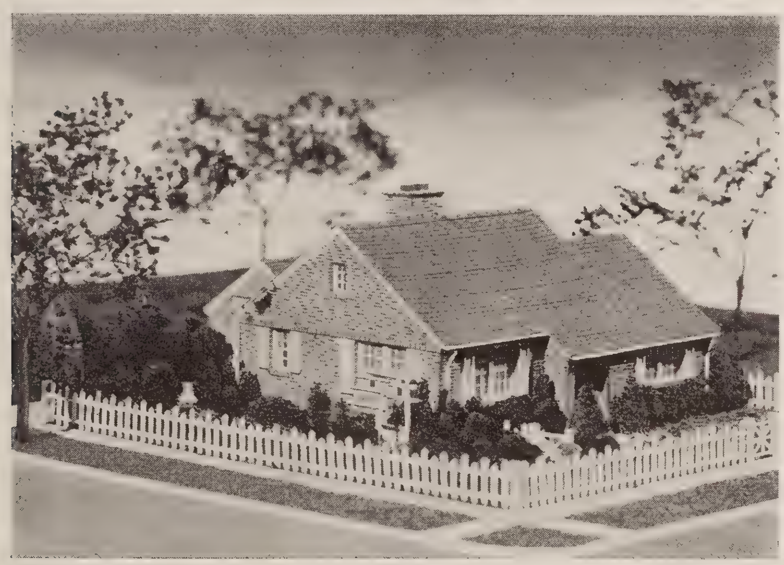
A Twosome Cottage

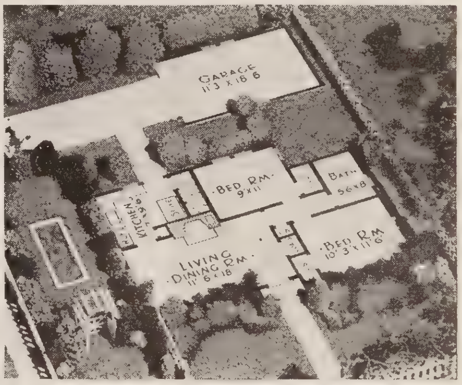
Designed by Architect Theodore Whitehead Davis

. . . but it will hold three. This simple little Early American home has a design adaptable to any of several exterior finishes

The design lends itself to economical face-brick treatment, for no intricate detail is involved in using this type of exterior finish. However, regardless of the materials chosen, surrounded by a fence and suitably landscaped, there is great charm in the simple lines of this home







No MATTER from what angle this Early American design home is viewed, it remains charming. Altho the design is very simple, the proportions have been very carefully studied.

The cottage has an interesting roof-line and window arrangement. Its chief decoration is the latticework that gives such a homelike air to the paneled doorway, at the same time creating a feeling of privacy about the little shelter. This shelter will be found to have the added virtue of practicality—protection against weather without any troublesome angles to encourage leaks.

The cottage has been designed to accommodate either the young married couple or the mature pair who, family gone, desire to move to a small home. With such occupants in mind, the designer has taken pains to help, by convenient arrangement, the homemaker who does all her own work.

The coat closet is near the front door. No need for members of the family to scatter their coats and hats over the living-room. It will really be more convenient to hang them up. The bedroom closets are large, and the linen closet in the hall is handy to the bathroom and both bedrooms. In the kitchen the supply closet and the dish cupboard give full storage room, and at the foot of the cellar stairs there is a large preserve and storage closet.

CHOOSING a heating plant should be an easy task—so easy is this home to heat, and so congenial it should be to any sort of modern, low-cost, air-conditioning plant.

Beneath the living-room there's space for a game room. Two windows would give enough light for ordinary purposes, and are already there. But if you wish to keep down initial costs, you must wait to finish the room, budgeting for it to be completed later.

The cellar stairs end almost at the back door, which makes them convenient to the outdoors and to both basement and kitchen.

The living-room is large to provide for the dining end—which is well lighted by a large mullioned window. The main entrance has been placed at the opposite end of the room so that the guest who arrives at mealtime doesn't walk directly in upon the family repast.

THE hall has been kept small as possible, yet it serves to shut off completely the bedrooms from the living quarters. Evening parties need not disturb children asleep. There's a scuttle in the hall ceiling to the storage space under the roof. This space is ventilated by windows placed in the ends of the gables.

Place this beautifully gardened home on a 50-foot lot and surround it with a low white picket fence, as indicated, and it fairly breathes an atmosphere of coziness and welcome and gracious living.

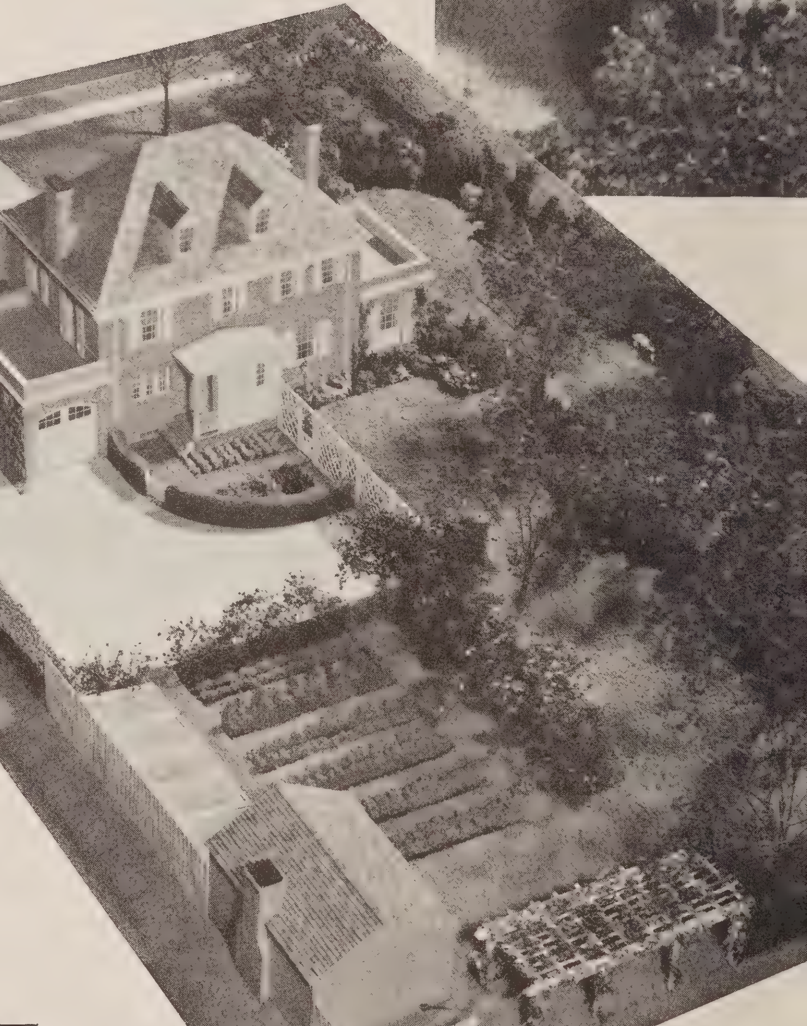
- How much will it cost you to build this house in your own community? See the introductory pages for information about the method of estimating the cost, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering Lists of Materials and working drawings, will be found on the last page.

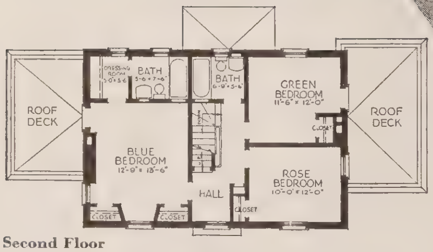
Bildcost Gardened-Home Plan No. 410

A Georgian House

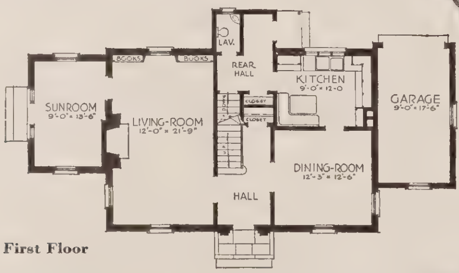
It has everything, say scores of Better Homers who've built it!

Designed by Architect A. Raymond Ellis

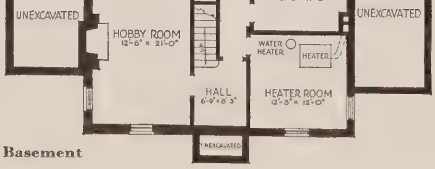




Second Floor

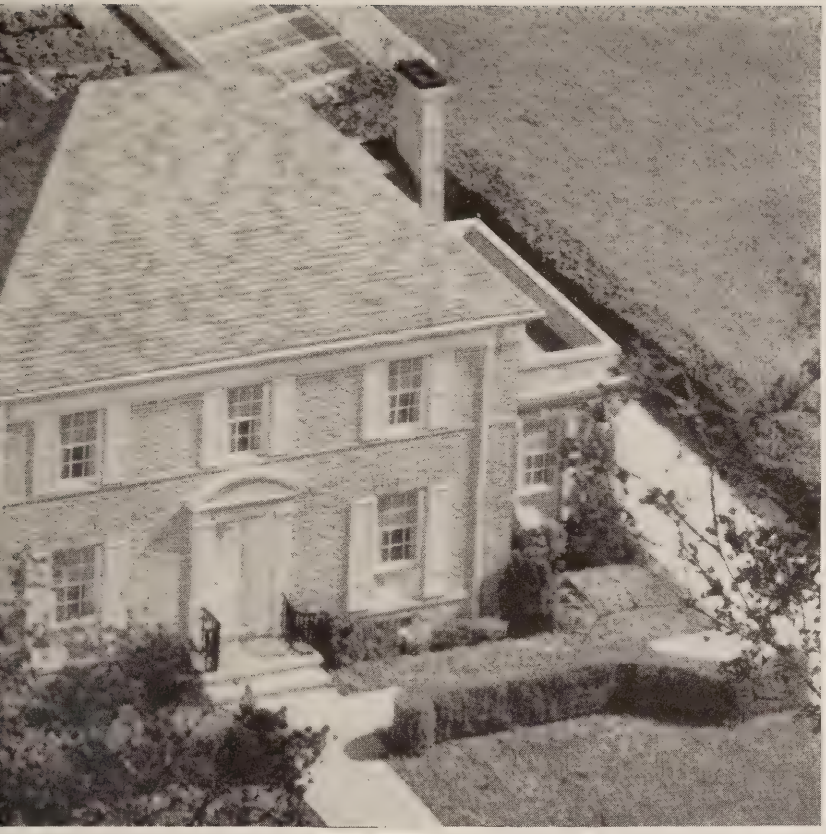


First Floor

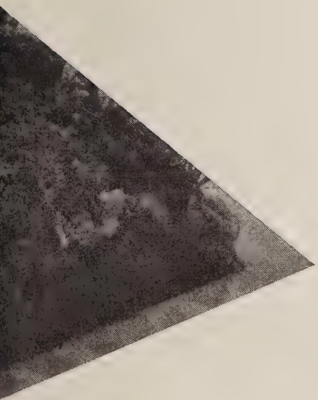


Basement

Bildcost Gardened-Home Plan No. 504



The garden plan affords the best possible utilization of available space. It's convenient, full of bloom, and can be both used and enjoyed. Its details can be carried out to fit the individual family's life and pleasures



THE black wrought-iron railing at each side of the door is finished with a brass finial and they're both set into a flagstone platform.

The foundation supporting the walls is concrete, altho it may be stone or brick if in your city these materials cost less. The walls themselves are built of brick in slightly variegated shades of light red, laid in warm chrome-color mortar. The construction could be either of solid brick, 8 inches thick, waterproofed, and insulated on the interior surface, or simply a veneer of 4-inch thickness built over a well-insulated frame structure.

Against this warm brick background it seems to us that the beautifully designed white-painted entrance door, with its delicately fluted pilasters and pediment above, and the window frames, denticulated cornice, and the shutters stand out in pleasant contrast—a contrast heightened and richly intensified by the variegated slate roof, with its blue, maroon, and gray shingles. Yes, if you prefer, you could use edge-grain shingles in driftwood gray or very dark gray.

THAT roof is what architects call a "hip" roof. It's so plain and so simple to build that it frees the carpenter's work of all complications, therefore takes less time and hence costs less money. Its shape also allows easy application of insulation, in board, blanket, metal foil, or loose fill, so necessary to comfort and inexpensive, easy heating.

This Georgian house everywhere used the best materials but is so designed that they are assembled economically. It isn't necessarily the cost of materials that runs up the price of a house; it's the building cost—the cost to shape them to a design. And so we have straight walls relieved at the windowsill levels by slightly projected horizontal string courses and regularly spaced windows, which make it easy for the brickmason to lay up his work rapidly. He doesn't have to stop to slip brick on corners and angles, fuss with built-in ornamental details.

What about girders? Well, they're steel for the first floor because they cost but little more than wood; and their added rigidity and the bending they eliminate keep shrinkage around the baseboards down to a minimum and prevent the uneven floors which many houses develop to dismay us a few short years after they have been built.

The sunroom and garage roofs—the left and right one-story wings respectively—are of frame construction covered with tar and gravel roofing. Over them, if you wish to use them as decks, you can lay a removable slat floor, in sections. Another method would be to lay heavy deck canvas well painted, like the deck of a yacht. Either will stand up well under hard use, such as contraction and expansion from the weather and the abrasion made by the nails in the heels of shoes.

TO PREVENT air and rain leakage, window and door frames are well caulked into the brick walls. The exterior woodwork is all pine, including the doors, windows, shutters, and latticework; and to protect and preserve the wood, as well as the two coats of lead and oil paint applied to it, it has been given an aluminum priming, or first, coat.

All the windows are weather-stripped and have for summer copper-bronze wire screens and for winter, storm sash.

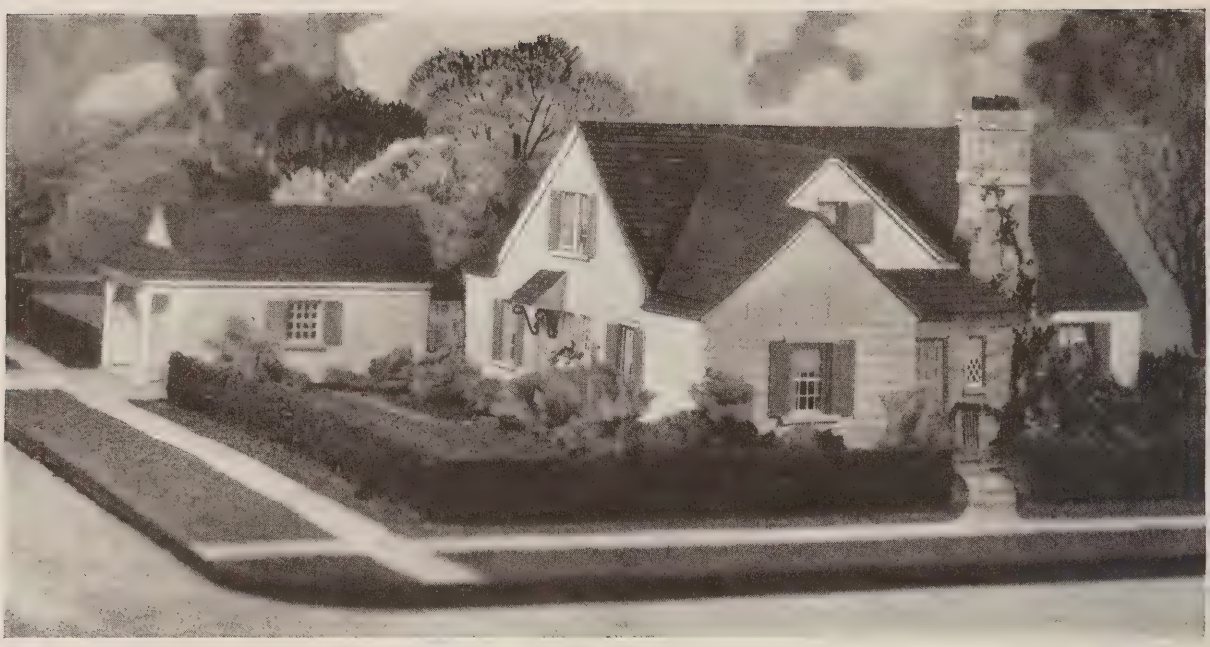
The fireplaces and chimneys have patented cast-iron throats, tip and slide dampers, and terra-cotta flue-linings to prevent sparks from working thru the brick joints to start a fire, and to keep soot and smoke from sifting into the house. The rain-conductors are made of 16-ounce hard-rolled copper and they have small ornamental heads.

Windows are of heavy, flat-drawn sheet glass. Glass is not all alike; it is made now in many varieties and qualities, and, like the eyes of a person, it either flashes and sparkles and reflects the brilliant rays of light, or it lacks luster and makes a house look lifeless and inanimate.

The floor plans clearly show the arrangement of the rooms. Note how certain features have been worked out to meet definite uses and needs found from experience to be desirable, such as the direct connection of the dining-room with the kitchen, the large rear hall with its ample wall space for hanging up miscellaneous clothing, the lavatory off of it, which is convenient to the outdoors and also has the desired privacy for general use. From this rear hall stairs lead to the basement, and a door may be cut from here into the living-room if desired.

THE living-room fireplace has an oiled soapstone facing, a hearth with firebrick lining, and it is framed with a well-designed wooden moulding. Above it is a raised panel, flanked on both sides by fluted pilasters. The mouldings of the mantel are well scaled, from the focal point of the room, and are connected with the other architectural units of the room by a simple moulded cornice and base. At the end of the living-room are two bookcases with adjustable shelves, with cupboards below, and paneled jambs at the windows.

- How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering List of Materials and working drawings, will be found on the last page.



The texture of the contrasting weathered stone blends the chimney and entrance together against the softer effect of stained wood shingles on the main body of the home

Unity and Repose

The charm of a cottage—the comfort of a castle

Designed by Architect Willard B. Smith

ALMOST any one of us, when we think of an ideal gardened home, has visions of an attractive living-room and dining-room, a distinctive hallway, a smart, well-planned kitchen, two luxurious bathrooms, and several airy bedrooms.

Then we heave a sigh and come down to earth, as our imagination can envision such an extensive interior only as being inseparable from a very imposing and extensive home, usually far beyond our wildest dreams.

Here, however, is a real gardened home of modest dimensions and exterior, but which actually contains all those prized features that we would like to have combined with the charm that comes with perfect lines and proportions and an arrangement of rooms that is nearly faultless.

THE feeling of unity and repose is everywhere evident in the exterior of this charming home. No one detail is featured to the detriment of the others, tho attention is brought naturally to the main entrance by the converging roof surfaces and sturdy chimney. The texture of the contrasting weathered stone blends the chimney and entrance together against the softer effects of stained wood shingles on the main body of the home. The English cottage style of architecture was used as a basis for the design, tho it was adapted to our climate and really has much of the American Colonial in its make-up.

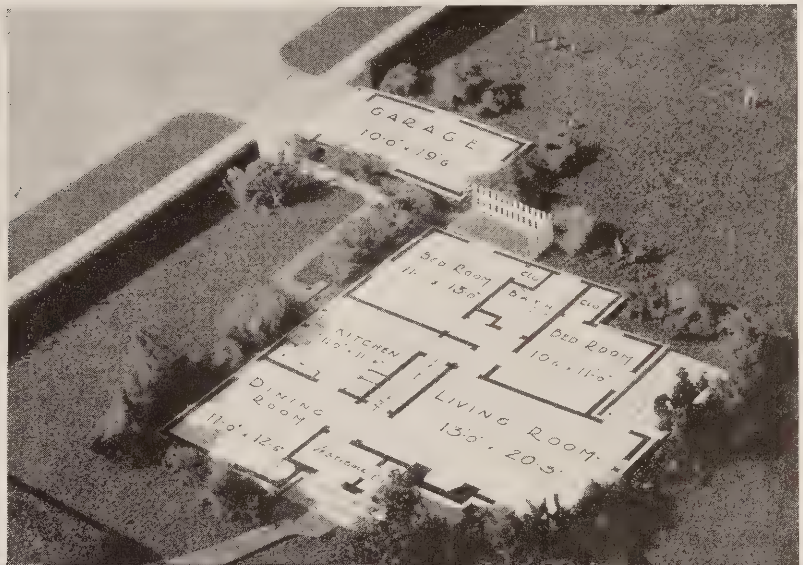
To find a proper setting for this home would not be difficult. Honest simplicity is expressed in every line, and it would readily accommodate itself to any type of neighborhood. Equally attractive from any angle, a large lot would enhance its appearance, tho its fine character would still be well maintained on a 50-foot lot.

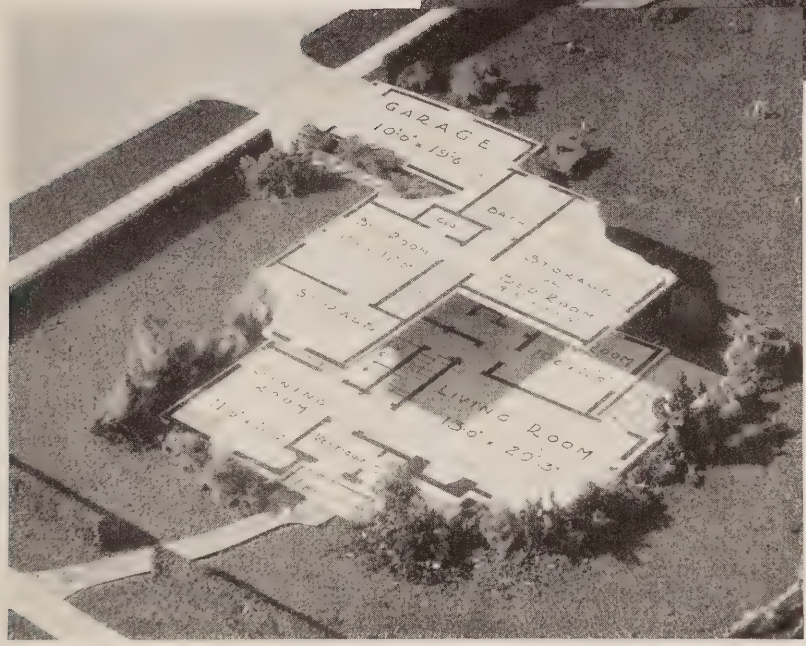
The interior arrangement is not a matter of chance, but the result of a careful study of present-day requirements, the rooms being laid out in a manner that will suit the needs of most home-builders. A number of features unusual in a plan of its extent have been included.

The living-room is ample in size, and it is sheltered from cold air, drafts, and unexpected intrusions by the large vestibule. It is a room full of life, and the outdoors, with its view in three directions, is made a part of it. The unusually high windows at the end run nearly up to the vaulted ceiling, a

The exterior of this beautiful Bildcost Gardened Home combines the gracious lines of the English cottage with the simple dignity of our Colonial tradition. Tho small, its interior arrangement provides many of the features of a much larger home

Study these floor plans. Live in this gracious little home for a few minutes with the aid of a pencil point—trace your steps from one room to another, look out the many windows that furnish two fine views and cross-ventilation to nearly every room





French door opens onto the terrace, and the single front window allows a view of the street and yet maintains privacy.

Next, consider the dining-room across the small hall which separates it from the living-room. Here there are plenty of wall space and a built-in china closet of unusual interest.

The kitchen is particularly well situated, as it is both close to and carefully segregated from both the sleeping quarters and the entrance, and either can be reached very directly without following a circuitous route.

Again, the arrangement of the bedrooms and bathroom is excellent. The three rooms are connected by a corridor of their own in such a way as to remove the usual objections to first-floor bedrooms. The bathroom is located between the sleeping rooms and possesses the two most desirable requisites, privacy and accessibility. It's also an easy room to keep warm, for it has a minimum of exterior wall exposure. One extra bedroom and bathroom are in the second story, to be used as a maid's or guest room, or, if the size of the family requires, a child's bedroom. If still more sleeping accommodations are needed, a fourth bedroom can be had by simply adding a dormer on the rear of the main roof.

THE BASEMENT likewise is laid out efficiently. The heating room and its fuel bin are separated from the remainder of the space, which is divided between a well-lighted laundry and drying room and another large, pleasant room with a rough-brick fireplace, ideal for several different purposes, depending on your choice. It would make an ideal study or recreation room. A small room is designed for fruit and vegetable storage.

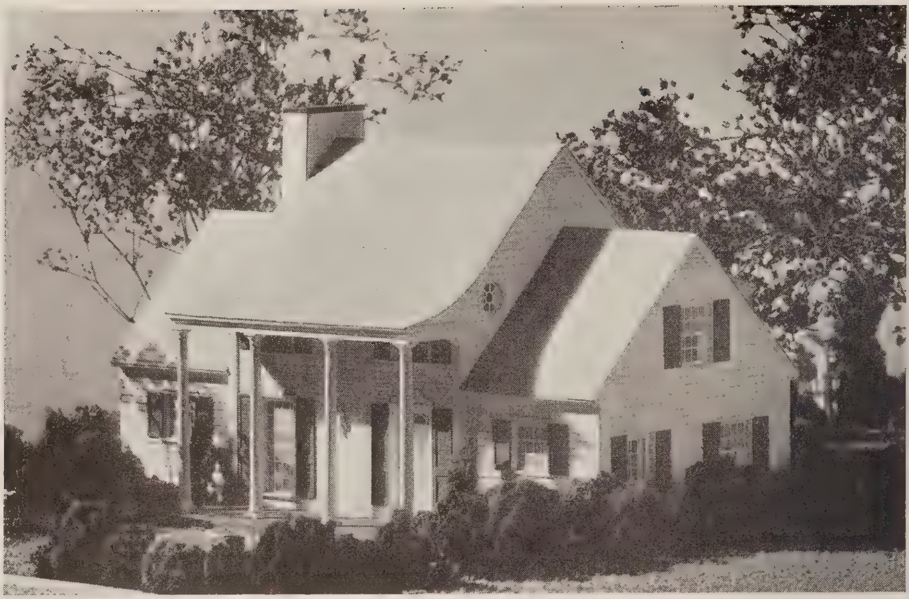
● How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering Lists of Materials, will be found on the last page.

FROM THE SAME PLAN

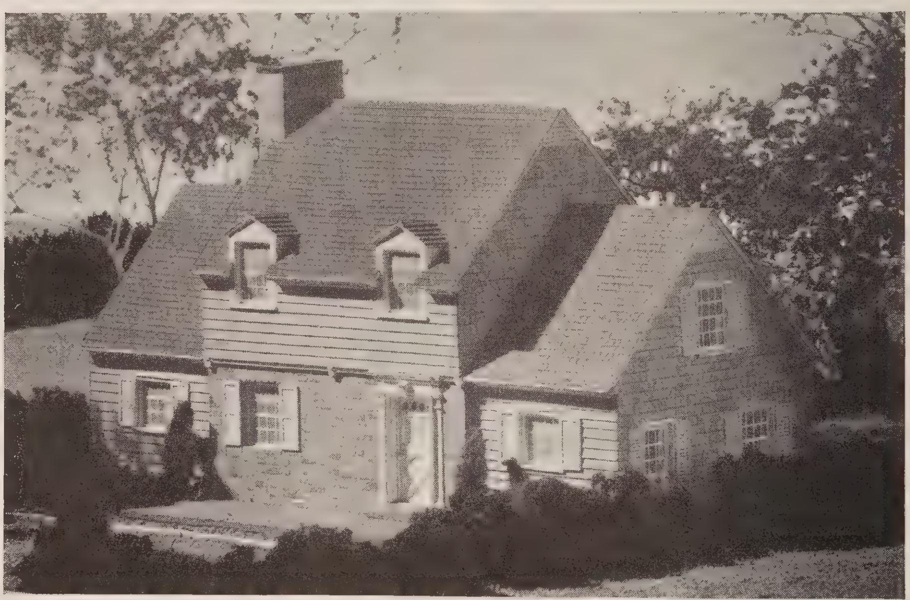
For the South:

For the North:

Designed by Architect
Stratton O. Hammon



Lie-on-your-stomach windows peep under the Southern Home's tall-columned porch roof



Interesting contrast between lower and upper walls contributes to the beauty of this home

EXTERIOR treatment is almost the only difference between these two homes.

The House for the South is distinguished by its tall-columned porch with the delightful little windows. The roof is weathered brown interspersed with gray, and shutters are dark green. The House for the North is roofed with gray weathered-wood shingles, fireproof imitation wood shingles, or black slate. All trim is white.

The principal difference in the interiors is in the design of the living-room paneling on the fireplace wall. In the House for the North, random-width moulded edge boarding is used, while the same wall for the South is covered with more formal stile and rail paneling and a Georgian mantel.

The circular upper portion of the stairway is a decorative touch to the front hall, framed by the paneling which conceals the coat closet on the right.

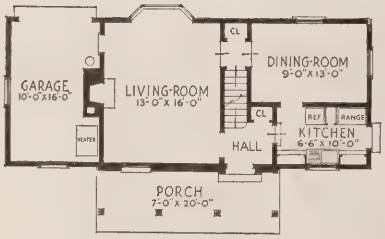
The living-room is of good size, enlarged further in appearance by the fireplace and windows. Wall space is unusually large, and a bay window adds to the cheerfulness. Two steps down lead into the dining-room past two closets whose doors give the appearance of paneling, and which provide storage space for dining-room accessories, or card tables and books from the living-room.

In the kitchen everything is at the finger tips. The sink under the window is flanked by wide cabinets with working shelves. Opposite are refrigerator, range, and closet, recessed into the walls with storage cabinets above them.

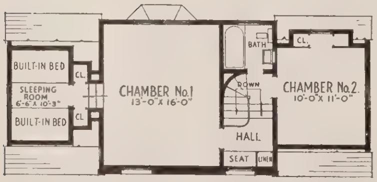
On the level of the second floor are the smaller bedroom and bath, and three steps up carry us past the linen closet and into the large bedroom. Here the beds are placed in an adjoining "sleeping room," connected to the bedroom by an arched opening. Working drawings show the house with or without a basement accessible thru the door between living- and dining-rooms.

A 50-foot lot will accommodate either house if the drive is brought in from the rear, or a 55-foot lot will permit the drive to pass around the side of the house.

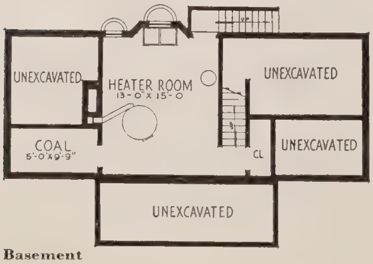
See introductory pages for an explanation of Bildcost Plan. You'll find a coupon, convenient for ordering, on last page.



First Floor

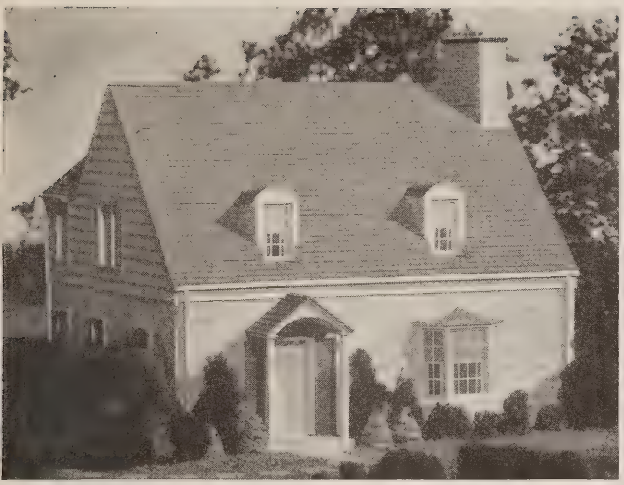


Second Floor

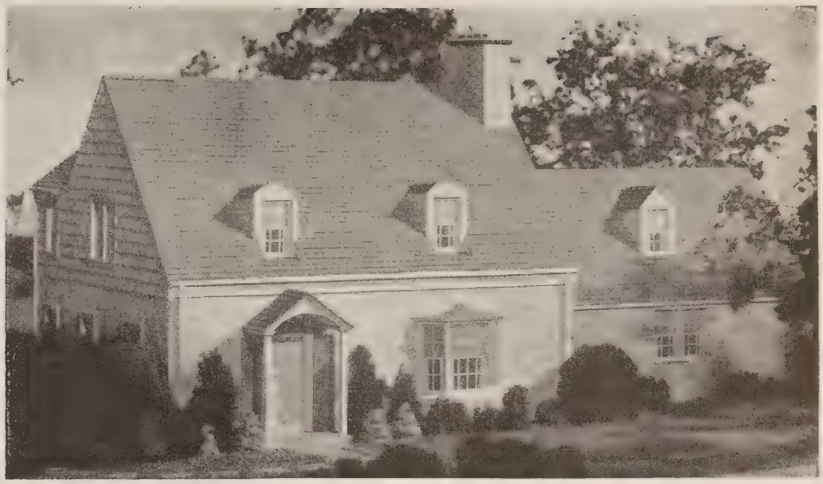


Basement

Bildcost Gardened-Home Plan No. 506



1 The first unit stands attractively on its own feet, and includes accommodations of a typical apartment: three bedrooms, living-room, and kitchen; and heating, rumpus, and laundry rooms in the basement



2 The home begins to grow. To the original house has been added the second unit consisting of a two-car garage wing with a roomy storage loft, reached by the stairs included in the addition. It isn't an unsightly, tacked-on addition, but complements and dignifies the original home

The Three-Unit House

Designed by Architect Verna Cook Salomonsky

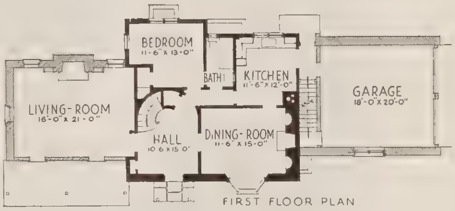
THE unit house is the solution to the problem of building within one's means, and providing for the future of a growing family. The original unit is designed to stand attractively by itself, and the additions enhance the beauty of the original as they are included.

Thus we start by building the central unit of the home—a modified duplex apartment. There's a living-room, kitchen, stair hall, and one bedroom with its bath on the first floor. Above are two bedrooms and a bath. The basement of the original unit provides heating room, laundry, and rumpus room, and no further excavation is necessary. Total expense of the completed home is held down by surfacing with low-cost materials outside walls later to become partitions.

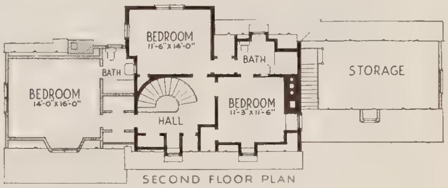
The original living-room becomes the dining-room with the addition of the living-room wing. Cupboards flanking the fireplace are transformed from bookcases to china cabinets when this room becomes the dining-room. The first unit boasts a hall with circular stairs, and knotty-pine doors of the dining-room match the woodwork, while the hall-side of these doors is painted to match the papered walls of the hall.

Outside, the low horizontal eaves of the roof, topped with dormers, permit pleasing proportions at each of the three stages of the development. Native stone, roughly laid in horizontal beds of white mortar, together with the exterior woodwork painted white, give a welcoming appearance, informal and cheerful. Black slate covers the roof.

To the original unit we add the garage wing after a time, with space for rooms above for storage, or a playroom for the children. Later on, we add the living-room wing which includes a large bedroom and bath on the floor above. And having started with a unit-plan, we finish, not with an ugly group of box-like rooms, but an attractive unit of which we may well be proud.

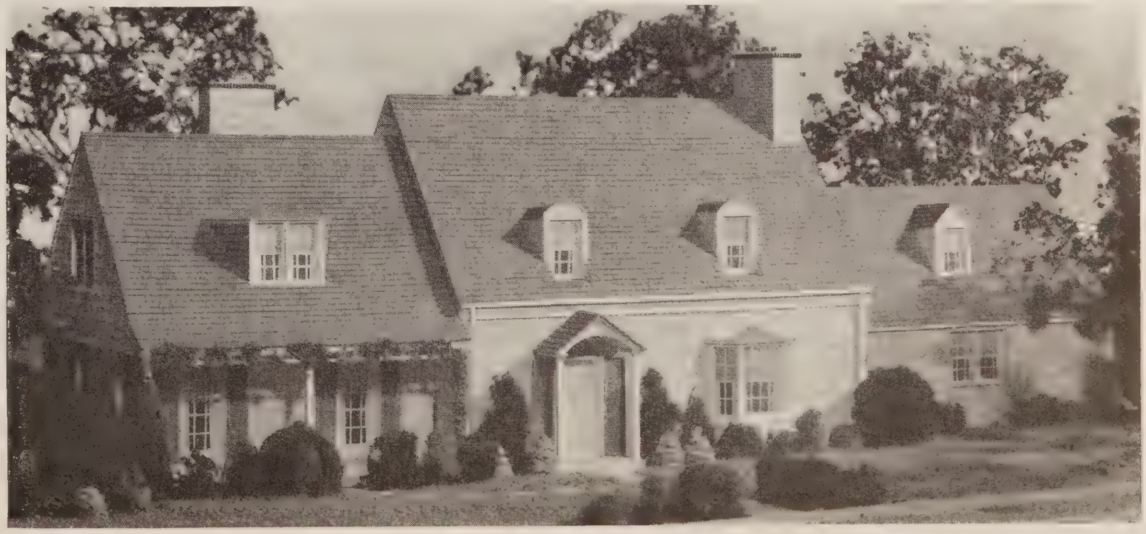


FIRST FLOOR PLAN

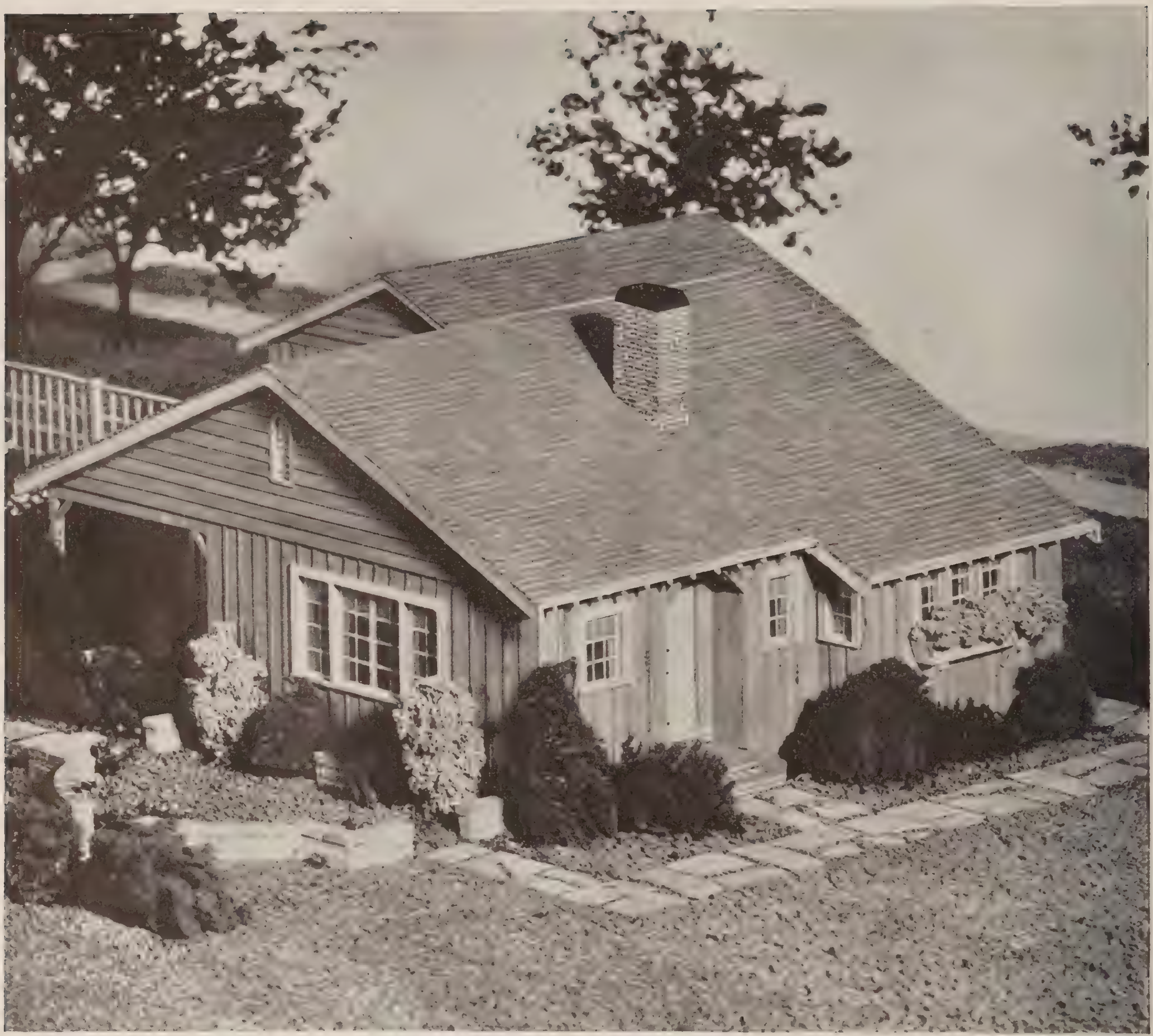


SECOND FLOOR PLAN

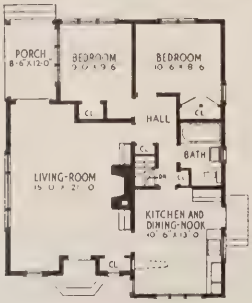
3 And here the unit-house has reached maturity with the addition of the living-room wing with a bedroom and private bathroom, and two large closets in the brief hallway leading into it. And, because it was planned that way, the home is a beautiful ensemble. The living-room has a fireplace, as you see



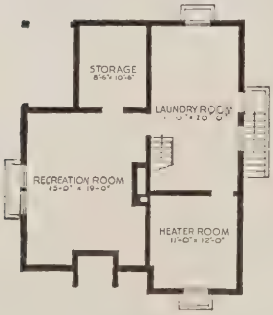
Bildcost Gardened-Home Plan No. 510



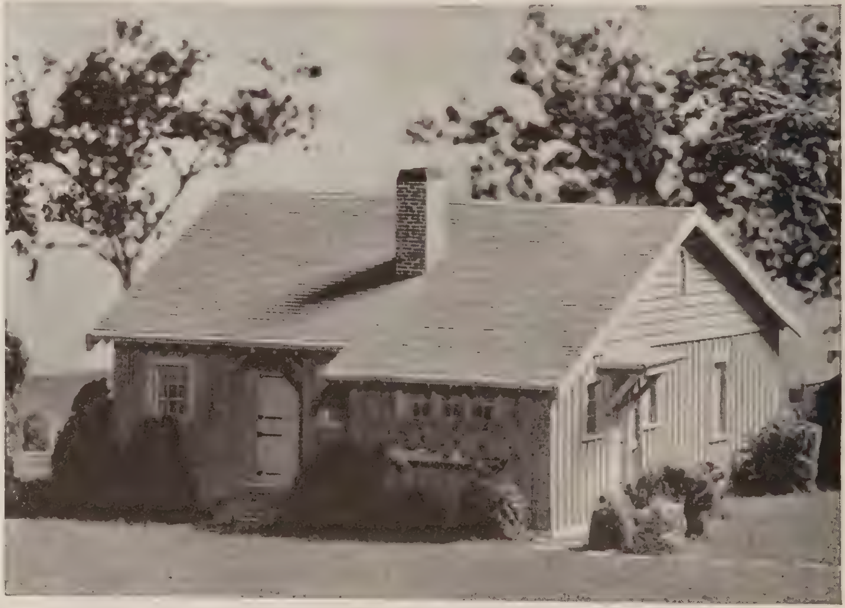
LEFT FRONT VIEW: Vertical planking and moulded strips give height to the house



First Floor



Basement



RIGHT FRONT VIEW: Attractive entrances and well-placed windows give a rather pleasant, homey distinction to this very popular little Bildcost Gardened Home

Bildcost Gardened-Home Plan No. 602

"Come Hither" House

Designed by Architect Ethel M. Crosby

BESIDES being convenient according to modern homemaking standards, and as comfortably snug as a bug in a rug, this little gardened home has that quality which architects call "lure." The more you look at it the more attached to it you become. It has the simple, distinctive design characteristic of Bildcost Plans.

If you're looking for a 4-room house and, what's more, an architectural gem of a little house that won't require a very stout pocketbook to realize, this little house, we'd say, is the end of your search. It's comparatively inexpensive to build; for one reason, because it has the fewest possible angles.

Moreover, so many little houses could so easily have been as attractive as this one esthetically if their owners had employed good architects to supervise their construction. A little attention to proportion—that is, the relation of walls and roof and window and door openings—does, as you can see, make a small house as attractive as a more elaborate one.

Altho designed for a 50-foot lot, and sophisticated enough for a suburban neighborhood, "Come Hither" would be quite as much at home in the country. It's finished outside with first-grade battens, planed 1 x 12's, with siding gables, but shingles or shakes could be used quite as effectively. For a new and rather different effect, the outside could be either oiled or varnished, and a bit of brightly colored peasant design added to the little triangles at either side of the front entrance and to the flower box.

The windows are small-paned casements, and the front and back doors are handmade of the Dutch variety which women find especially practical.

THE house inside is finished with fir plywood beautifully grained and easily applied. It could be varnished with one coat, to give a soft orangey tone for the living-room, and painted with a thin coat, to show the grain, for the bedrooms.

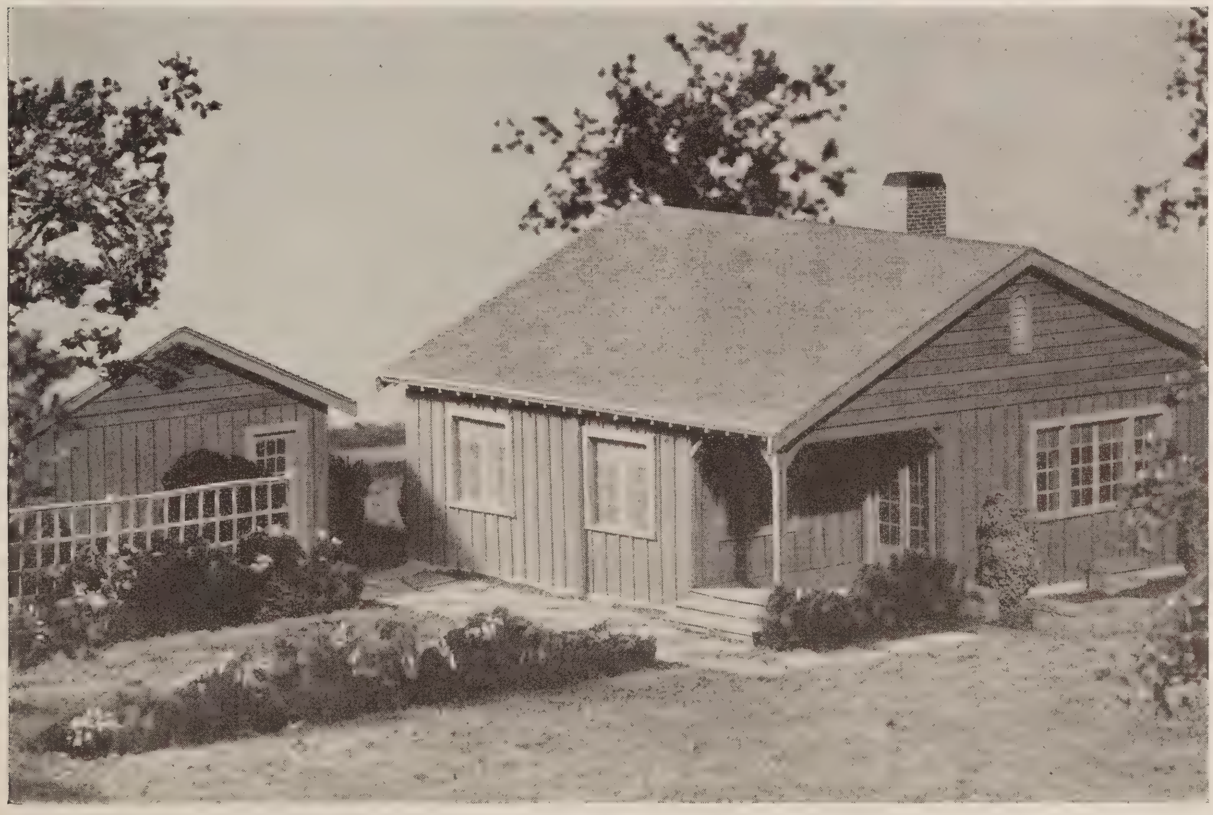
The house is conveniently and compactly planned, yet spacious, as study of the detailed architectural drawings will show you if you care to buy them. The living-room has plenty of sunlight thru its east and south windows, and the French doors opening onto a small porch at the back give access to the garden. This porch can be glassed in if you wish.

The kitchen is a homelike room, finished in natural wood with a 3-foot 6-inch wainscot and washable wallpaper above.

In the basement is space for a garage if, instead of the detached garage shown, you wish to have it there and your local building laws permit it. Also in the basement are the heater room and a recreation room. The laundry trays are economically and handily placed below the bathroom plumbing.

A number of *Better Homes & Gardens* readers have built this inviting little dwelling and have found it as economical to construct as it is to maintain afterward. Many have commented upon the "way it snuggles down and takes to planting."

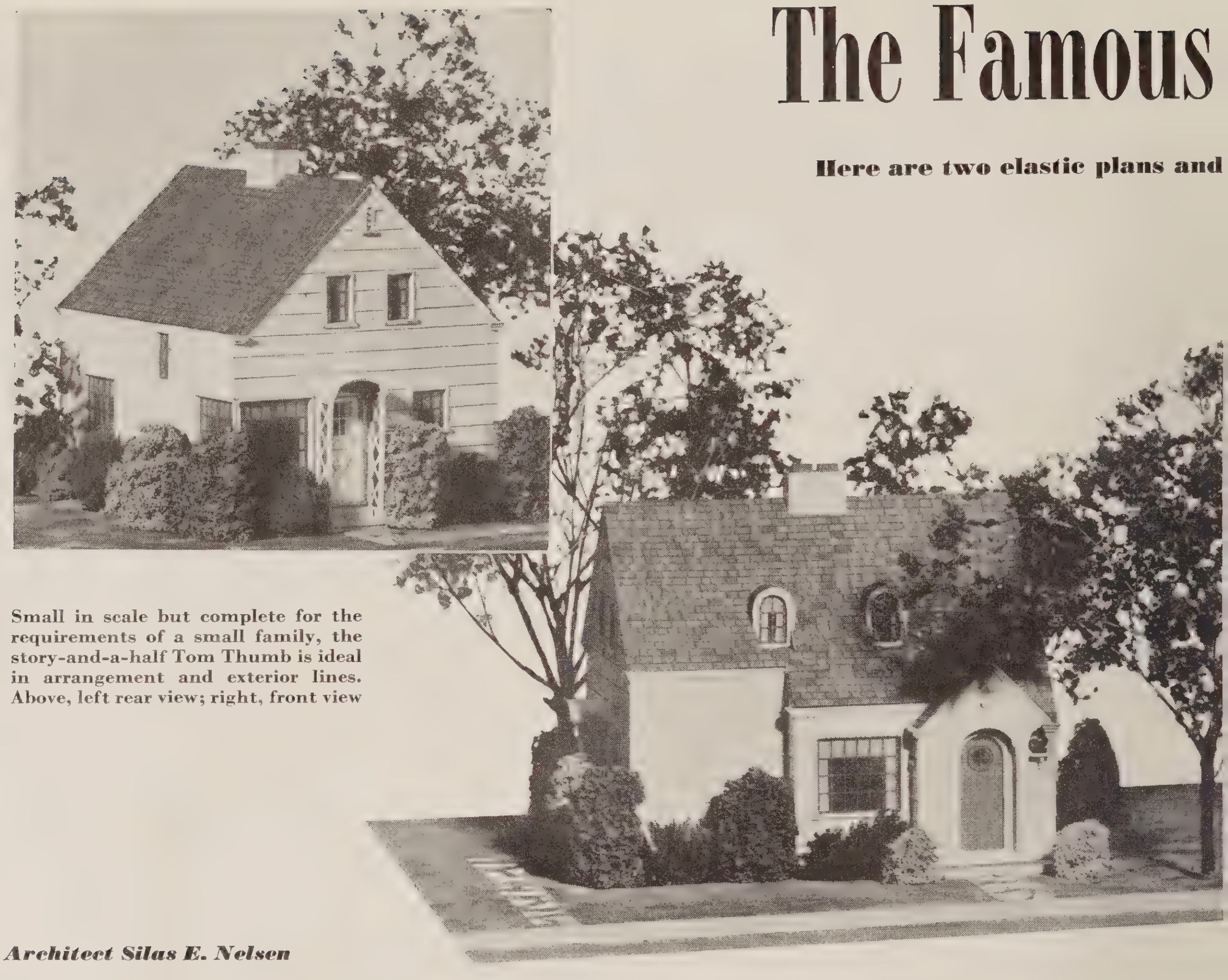
● How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering Lists of Materials and working drawings, will be found on the last page.



RIGHT REAR VIEW: The porch, opening from the living-room, leads directly to the garden

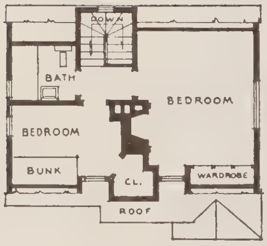
The Famous

Here are two elastic plans and



Small in scale but complete for the requirements of a small family, the story-and-a-half Tom Thumb is ideal in arrangement and exterior lines. Above, left rear view; right, front view

Designed by Architect Silas E. Nelsen



Second Floor

The second floor has two bedrooms, cross-ventilation, bathroom, and excellent closets

THESE two little gardened homes embody one present-day trend in home design. They're the result of careful study to give you homes which combine the conveniences of the modern apartment and at the same time preserve the best American tradition in architecture.

They'll fill, *Better Homes & Gardens* predicts, a crying need all over America, where the apartment has demonstrated that a small space with practical built-in conveniences is very livable. For they're practically apartments, set down among the flowers, trees, and lawn, but having the added advantage of individual privacy. Their appeal lies in the fact that they're pleasing to the eye, contain ample space for the small family, and are, besides, and more important, inexpensive to build.

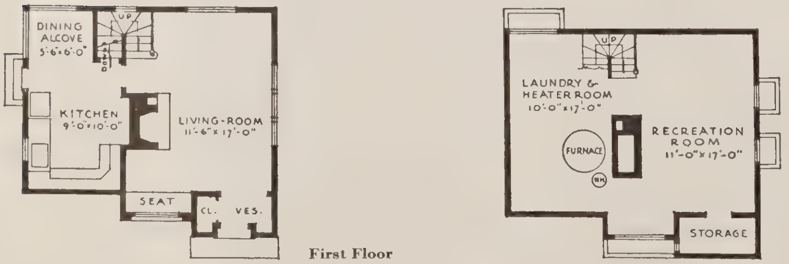
Their exteriors are treated in a simple Early American character. The walls are shown with wide clapboards, but may also be equally attractive built with shingles or split shakes. The plank shutters shown are made of cedar or pine and put together with cleats in the good old-fashioned way.

All the exterior detail is carefully designed and planned to be in perfect harmony with the size of each house and to give an atmosphere of dignity in any setting.

It's unusual to find in plans so small the livable qualities worked into the arrangement and designs. All the comforts of the usual house twice their size are contained in these compact plans. There is, moreover, an abundance of light, without the appearance of the walls being all windows.

In both these gardened homes the full basements permit ample room for a heating plant, fuel storage, nicely lighted laundry, built-in storage lockers, and fruit closets. The large basement sash are set in areaways.

In the story-and-a-half Tom Thumb home, entrance is made into a small vestibule directly off the living-room and one step lower. Into this vestibule is built a coat closet, having outside ventilation thru a small louver. The living-room from here, with its fireplace, bay window, and a portion of the stairway showing, presents a homelike picture. The light comes from three sides, thru large windows, to give this living-room a cheerful atmosphere. The kitchen is laid out in a most modern manner and permits a refrigerator near the rear delivery door, convenient to the work counter. The back part of the fireplace forms an in-


DINING ALCOVE 5'-6"x6'-0"
UP
KITCHEN 9'-0"x10'-0"
LIVING-ROOM 11'-6"x17'-0"
SEAT
CL.
VES.
UP
LAUNDRY & HEATER ROOM 10'-0"x17'-0"
FURNACE
WH
RECREATION ROOM 11'-0"x17'-0"
STORAGE

First Floor

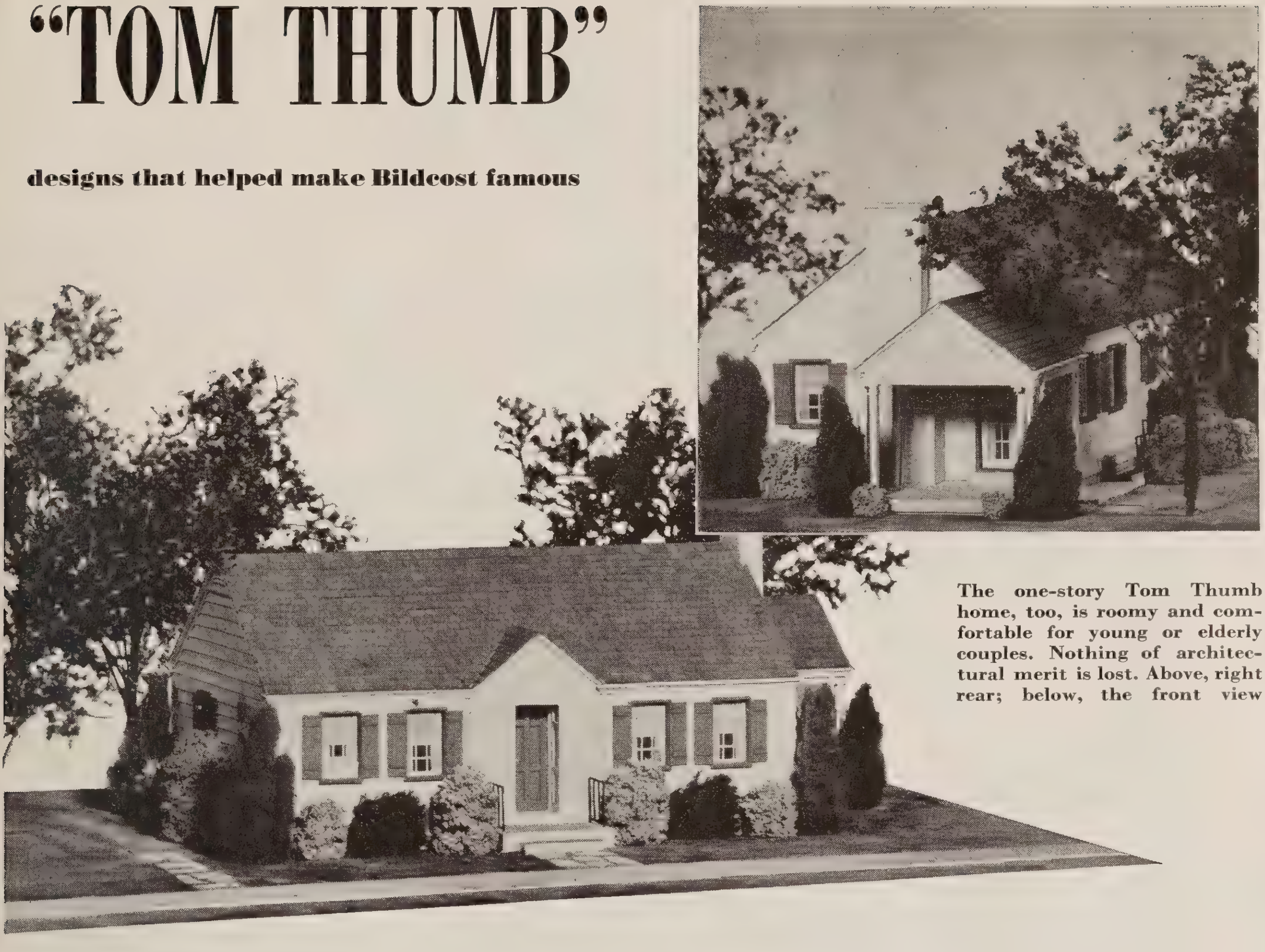
Basement

The first floor of the story-and-a-half Tom Thumb is compact, yet full of desirable features. The basement has all the features of a much larger house, including a recreation room

Bildcost Gardened-Home Plan No. 603A

“TOM THUMB”

designs that helped make Bildcost famous



The one-story Tom Thumb home, too, is roomy and comfortable for young or elderly couples. Nothing of architectural merit is lost. Above, right rear; below, the front view

teresting brick niche just large enough to back up the range. The bricks are left exposed in this niche, or may be plastered over if you prefer. The cupboards are designed with toe room at the floor, preventing scuffing, and with ample drawers and shelving. They contain storage space for the average small-family needs and for the use of modern electrical appliances. The dining alcove occupies a small space off the kitchen and, with its large corner windows taking up two of the wall spaces, is very cheerful. Entrance to the basement is made from the kitchen, utilizing the space under the second-floor stairway.

THE second floor contains a complete bathroom large enough for any small home, and its location, just off the hallway, is convenient to the bedrooms and the first floor. The smaller bedroom has a very interesting built-in bunk, utilizing the sloping portion of the roof, and is built of knotty pine. There are also a built-in closet and windows on two walls, making this an ideal room for any age. The larger bedroom contains built-in wardrobes, a fireplace, and has windows on two walls, permitting cross-ventilation.

The one-story Tom Thumb gardened home has its entrance opening into an entry hall, from which all rooms are accessible. The two coat wardrobes directly off the entrance are a practical built-in feature. Entrance to the basement is made from this entry hallway.

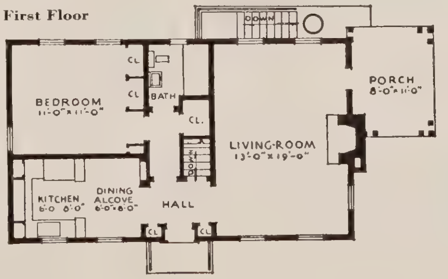
The fireplace, low ceiling, and windows on three sides in the living-room make it very pleasant. The plan calls for either a wood-panel wall on the fireplace side or an alternate vertical-plank scheme which tends to keep this room in harmony with the exterior.

The size of the bedroom is ample, and two arrangements are possible for locating a double bed or twin beds. The wardrobe is built in and has storage space equal to a closet twice its size. The bathroom arrangement permits easy access to all rooms of the house, and by closing the hall door the bedroom and bathroom are made into a private apartment. An arrangement of kitchen and dining alcove that has proved most satisfactory in many small apartments has been successfully worked into the plan. In the kitchen are well-laid-out cupboards, refrigerator, range, cabinet sink, and roomy storage spaces.

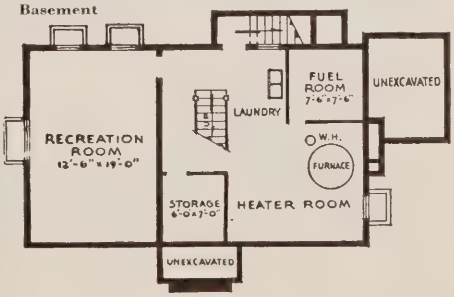
In almost every room of both gardened homes are other studied conveniences, including cupboards, medicine chest, and linen closets.

Better Homes & Gardens advises you not to build either of these homes, or any other Bildcost Gardened Home, without supervision of a good architect. Instead of costing you additional money, he'll save you money, and insure your getting, besides good design, sound and good construction.

- How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering Lists of Materials, etc., will be found on the last page.



The one-story Tom Thumb first-floor plan

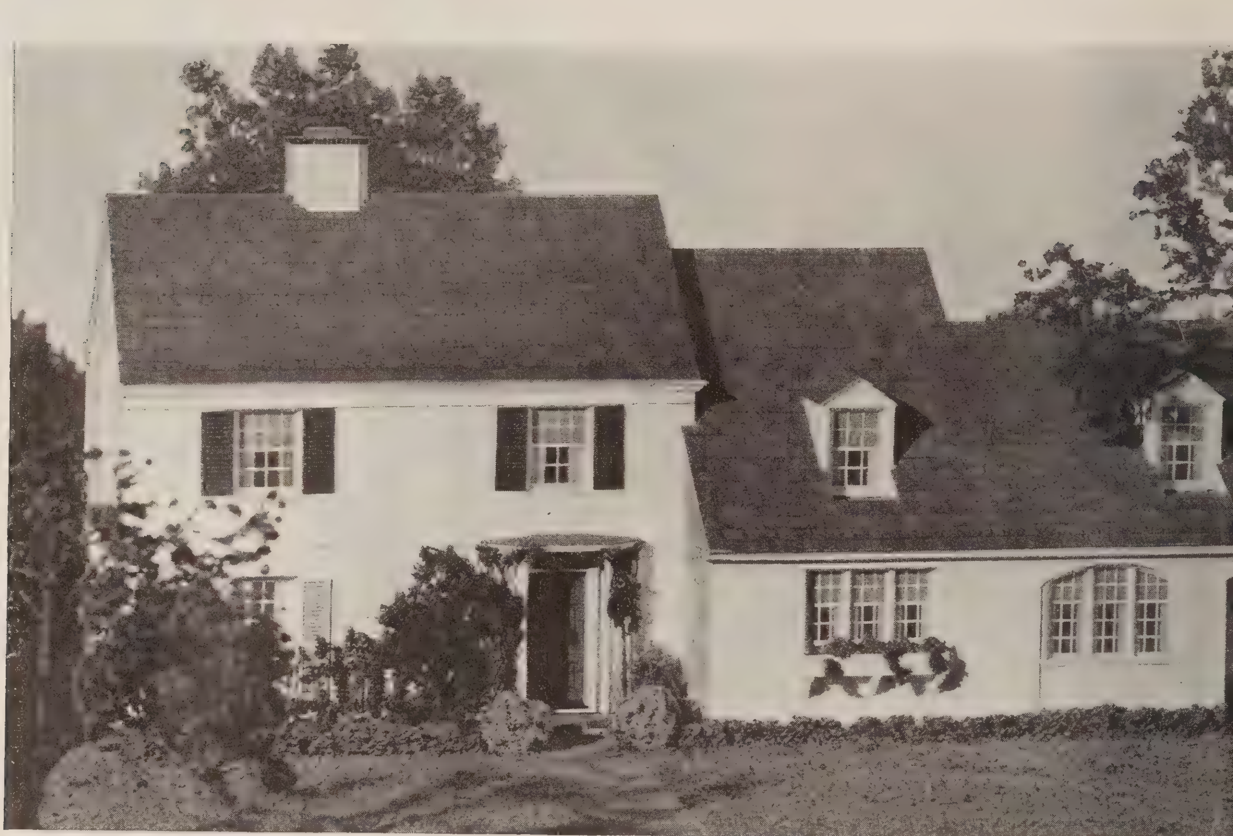


The basement, with an outside entrance

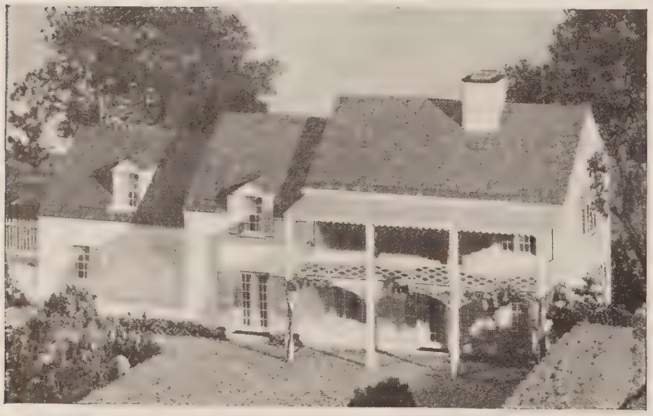
Bildcost Gardened-Home Plan No. 603B

Of Distinctive Merit

Designed by Architect



A close-up of the attractive "face" . . . white-painted brick, green shutters, little dormer windows, casually rambling roofs



The rear side is a delightful background for the spacious garden

How much will it cost you to build this house in your own community? See explanation of the Bildcost Plan for method of estimating it and instructions on use of List of Materials. A coupon, for your convenience in ordering Lists of Materials and complete working drawings, will be found on the last page of this book

At THE first glance at this Bildcost Gardened Home, we believe you'll notice that it caters to varying moods.

As you've guessed perhaps, all the major rooms—the living-room, library, and dining-room downstairs, and all the bedrooms upstairs—look out on the garden.

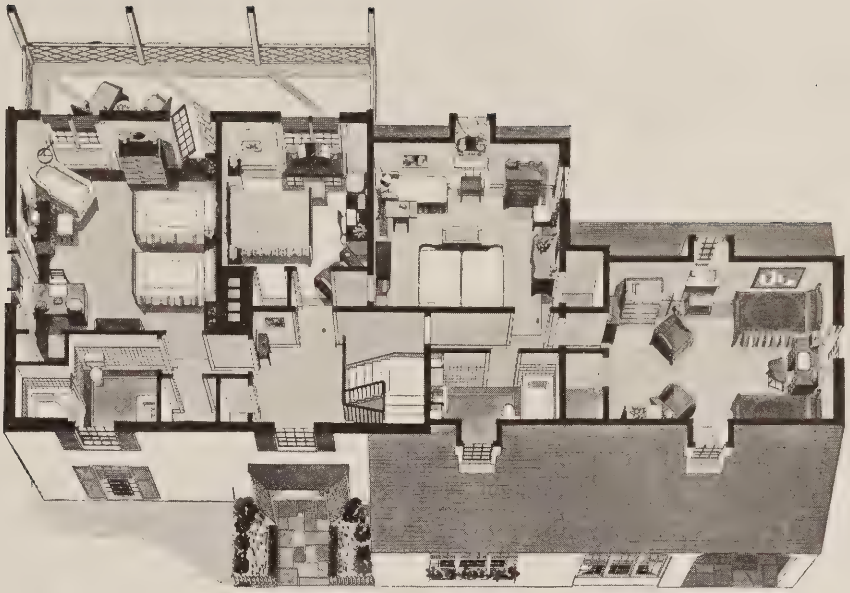
The two-story gardened porch is the theme of this design, and is, on the ground floor, an ample veranda with French doors opening into the living-room and sheltering the curved bay window of the library. The upper porch, level with the second floor, has the advantage of being either open or shaded at the roof.

The exterior walls of the home are of common brick, laid 4 inches thick and veneered to a framework of wood studding. Diagonal sheathing covers the studs, and in turn is covered with a heavy, pliable building paper before the brickwork is commenced. Beneath the brickwork the exterior walls have been completely protected, as has the space between the rafters over the exposed ceilings. In this way we've literally inclosed this house in a complete blanket which will continue to give living comfort and reduce your fuel bills by a third or more for all the years to come.

The exterior brick walls are painted with cement-base paint. The same general effect could have been obtained with any one of a number of ready-mixed masonry paints, all of which have a tendency to seal the pores of the brick and mortar joints and so prolong the life of the walls. To complete the idea of a white house, all the exterior woodwork, with one exception, has been painted white. The exception is the two pair of shutters on the second story of the street side, where we thought a touch of midnight green would give a note of richness and sufficient contrast to the house.

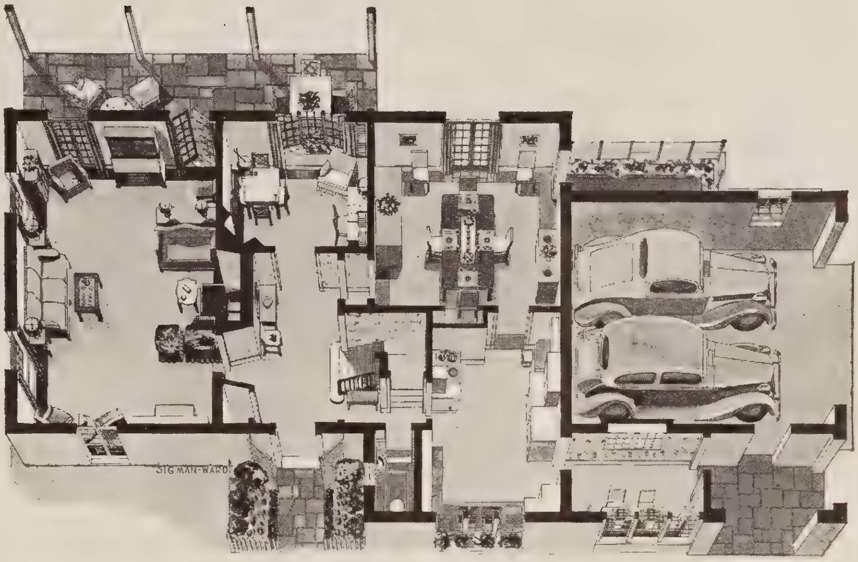
Bildcost Gardened-Home Plan No. 604

Verna Cook Salomonsky



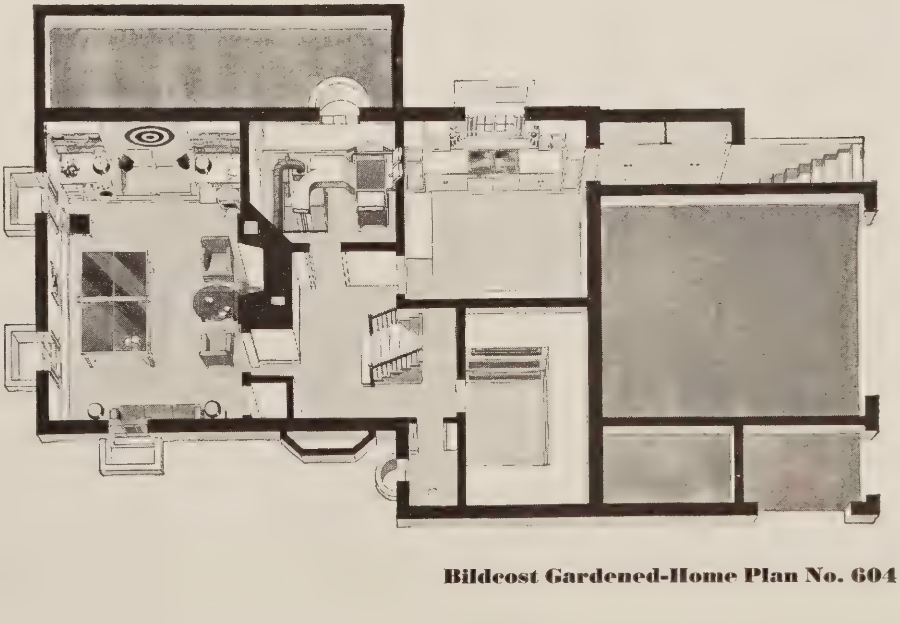
SECOND FLOOR

Left to right—Delphinium Bedroom: 15 feet by 16 feet; Rose Bedroom: 11 feet by 11 feet; Lily Bedroom: 14 feet by 12 feet 7 inches; Boys' Bedroom: 17 feet by 12 feet ➜



FIRST FLOOR

Left to right—Living-Room: 15 feet by 23 feet; Library: 11 feet by 9 feet 8 inches; Dining-Room: 14 feet by 14 feet; Kitchen: 9 feet 8 inches by 12 feet; Breakfastry: 10 feet by 6 feet; Garage: 17 feet by 20 feet ➜



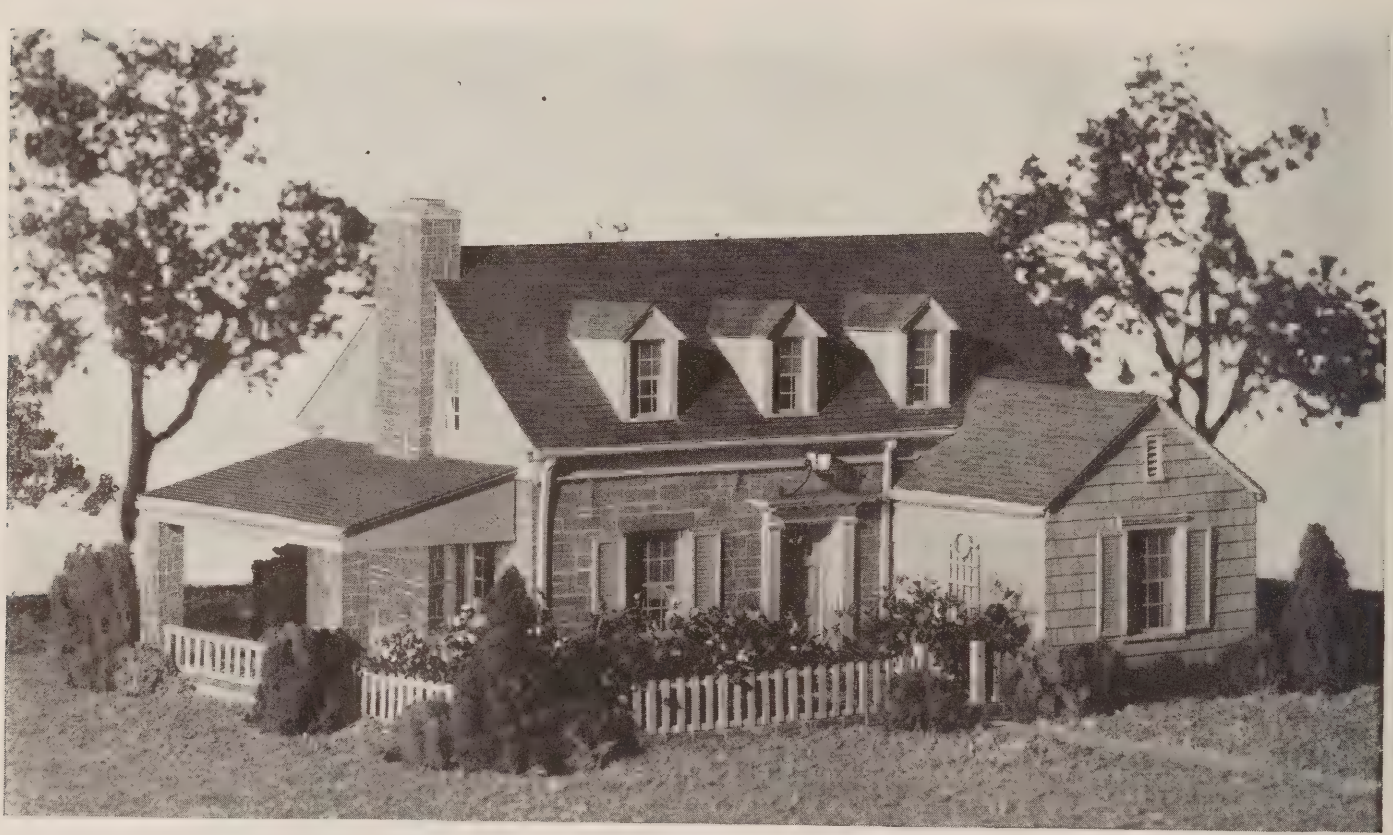
BASEMENT

Left to right—Game Room: 16 feet by 22 feet 6 inches; Heater Room: 11 feet by 9 feet 3 inches; Laundry Room: 13 feet 6 inches by 13 feet 6 inches; Storage Room: 9 feet by 15 feet ➜

Bildcost Gardened-Home Plan No. 604

A Little Big Home

This roomy little gardened home has just about everything



A judicious variety of painted shingles or clapboards combined with stone removes any chance for monotony of line or texture and helps to create an atmosphere of sturdiness and stability

Designed by Architect Elliott Lea

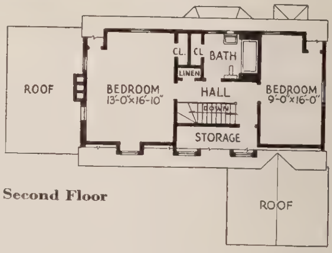
TWO outstanding characteristics set this house apart from the average—its small overall size, making it economical to build and to maintain, and its unexpectedly complete and generous living facilities.

Of almost doll-like proportions, it nevertheless approximates in plan and in number and size of rooms those houses generally beyond the average purse. As you can see, it has within its small area six major rooms, two bathrooms, a lower and an upper hall, and an adequate and well-lighted storage space. It isn't a tricky house; there are no double-purpose rooms; it doesn't demand any especially designed furniture to make it livable; and it doesn't require that its occupants change their mode of living.

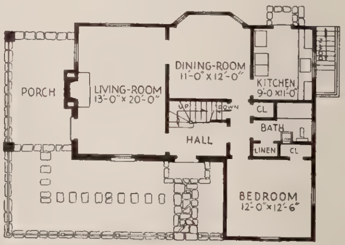
It has all the rooms that custom and social usage, as well as downright necessity, dictate; but it's held to its economical and delightful size because each room is planned for function rather than for mere space.

IN ITS PLAN, as well as in the design of its exterior and interior appointments, the house speaks of comfort, ease, and dignity. It's adaptable to a wide lot or a narrow one, merely by turning it one way or the other. And its cost may readily be controlled and brought within any average budget merely by limiting or extending its appointments and the quality of its material.

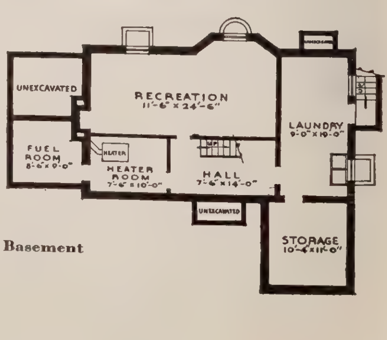
The style of the exterior might, for want of a better term, be called Early American; it does, in its details, claim some kinship with that period. But, really, in design this house stands on its own feet. It's a sincere and frank expression of its purpose, which is to attain a home of fine comfort and distinction for an extremely moderate price.



Second Floor

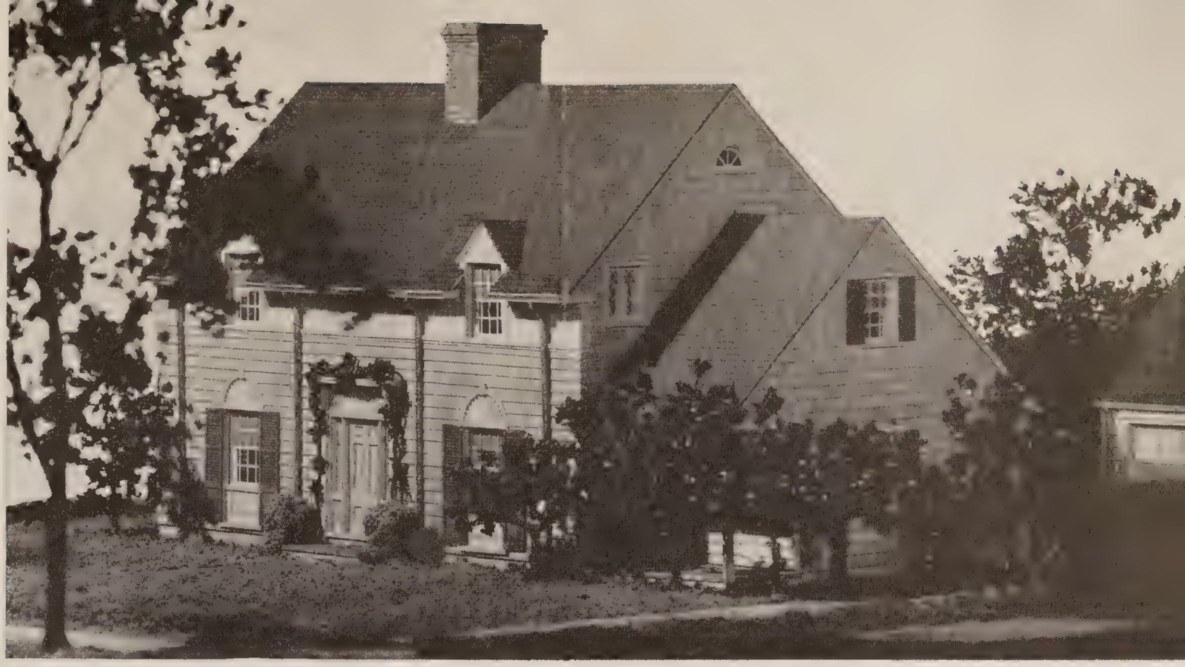


First Floor



Basement

Bildcost Gardened-Home Plan No. 605



It's triple-insulated with asbestos shingles outside, bats of rock-wool between the studs, and steel-wire reinforced plaster walls almost eliminating cracks

It's Fault-Proof

Designed by Architect George B. Hall

OUTSTANDING features of this home are the wall and roof materials, and the construction. It's triple-insulated. But it's of frame construction in a manner familiar to every carpenter in the country, and the materials can be had anywhere in these house-conscious United States.

On the outside of the studs there's sheathing and then building paper in the usual manner. But on the very outside is an asbestos shingle, which should be welcome news to everyone building a new home or renovating the outside of an old one. It's fireproof, and this type was the first to simulate the variation of the texture of real wood. It's available in an asbestos wood-textured shingle in a light gray or off-white, and in other colors as well.

INSULATION between the studs will keep the temperature on the outside and that on the inside from getting friendly with each other at any time of the year.

The interior walls are plastered on a new steel-wire reinforced mesh which is imbedded in the plaster and greatly reduces, if not eliminates, the possibility of cracks. Furthermore, the steel-wire mesh construction strengthens the plaster slab, eliminates lath marks, and minimizes the fire hazard in walls and ceilings.

Termites will be unable to force an entry or to devour the wall material.

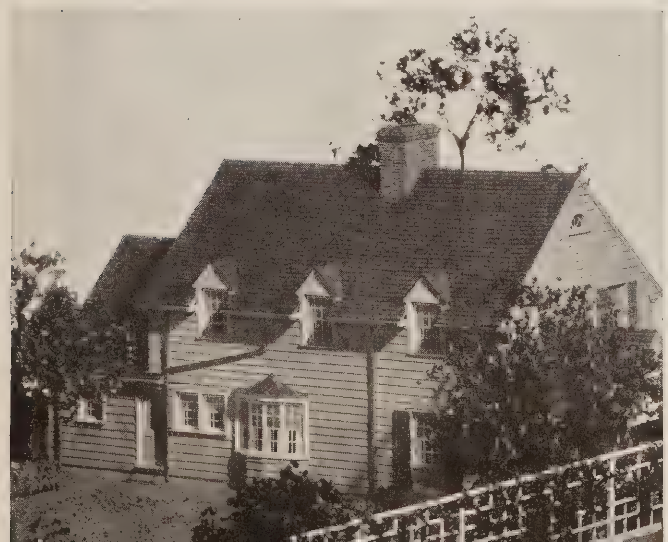
THIS triple-insulated home follows the most popular floor plan in America, with stairs in the center, living-room at one side, and dining-room and kitchen on the other. There's a breakfast room to the rear of the stairs boasting not merely a window, but a curved bay. Conveniently near the kitchen is the maid's room, or a study if you prefer, and a bathroom. Plumbing is adjacent to that of the kitchen.

Enlivening features are the two porches, a small one off the dining-room well adapted to outdoor informal meals, and another outside the living-room door.

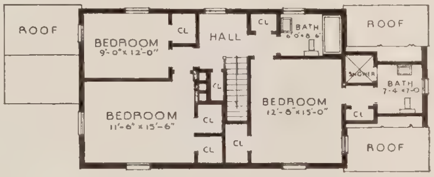
Upstairs are two large bedrooms, a smaller one, and two bathrooms, all conveniently arranged for comfortable living. Doors and windows are thoughtfully located to insure variety in room arrangement.

EXAMINE the construction and specifications of this home at any time you have in mind building or even remodeling. Regardless of initial cost, this triple-insulated home will save you many dollars in peace of mind, in protection, and in insurance rates and repair bills. And with all its practicability of construction and convenience of arrangement, it's a home of proud beauty.

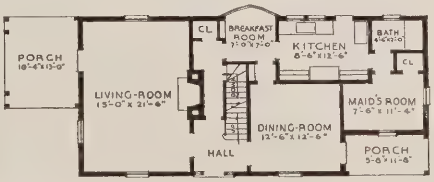
- How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating, and an explanation of the Bildcost Plan. Bildcost Plans give you exactly what you would expect to have on reading the descriptions of the homes, at a cost that can be accurately determined by your contractor, building-material dealer, or architect. A coupon, for your convenience in ordering, appears on the last page.



A rounded bay window brightening the breakfast room below and three half-dormers above add a great deal of interest to the rear of this home

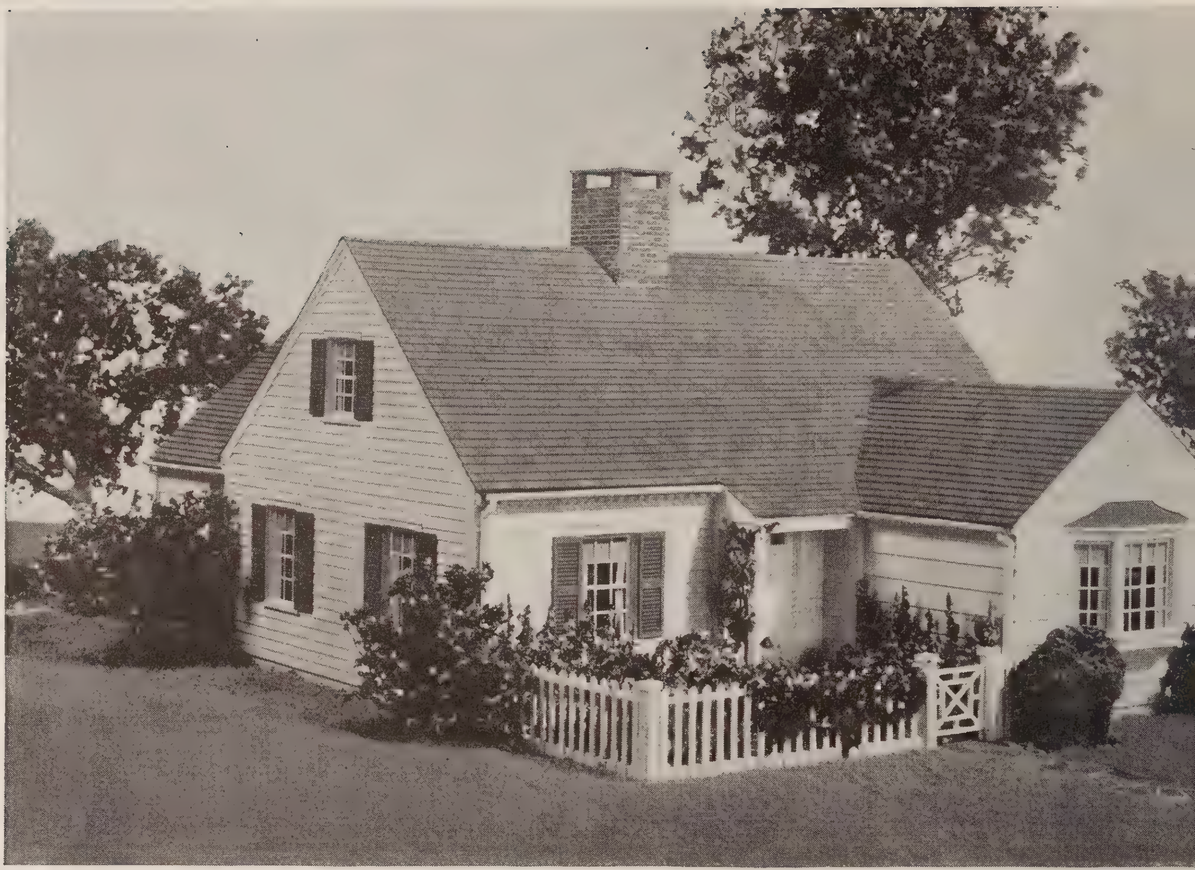


Second Floor



First Floor

Bildcost Gardened-Home Plan No. 606



With its low picket fence and the attractive plantings of shrubs, the exterior of this Bildcost Gardened Home presents a cozy welcome as the interior merits, and its neat dining-room bay window enhances the beauty of the gable

Convertible Colonial

A home that can be adapted to family requirements

Designed by Architect Theodore Whitehead Davis

ADAPTABILITY to widely varying family requirements is the feature of this *Better Homes & Gardens* Bildcost Plan for an informal Colonial cottage. It can be any size you care to make it—a complete and charming bungalow for the small family, since the second-floor bedrooms needn't be finished at first. Yet in its completed state it has four double bedrooms.

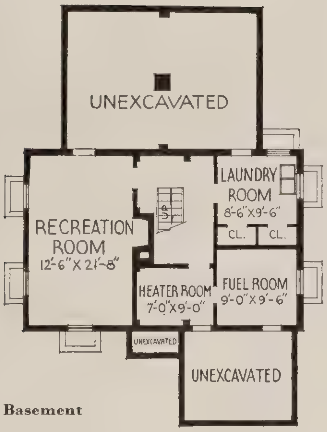
"Convertible Colonial" can also be a comfortable home and office for the man whose vocation makes it desirable to conduct his business affairs in his own house, for the dining-room, as you'll notice, can be completely shut off from the living quarters and converted into shop, office, or study.

The arrangement of the front hall does other things for you besides shutting off the dining-room. The stranger coming to your door doesn't step into the bosom of your family—or should we say on it? There's no direct view into your main room. Instead, your visitor steps into a hall large enough to contain a chair for him to sit in. You'll be thankful for the ample coat closet that eliminates the need for coats to be strewn about. You'll also like the step-saving feature of a kitchen entrance to the front hall.

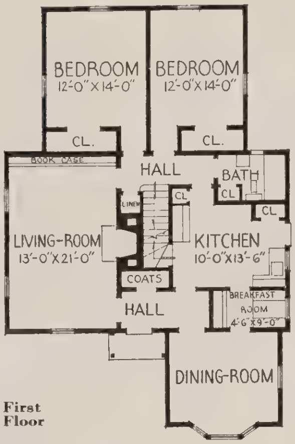
The plan is so arranged that the maximum of privacy is assured for everyone. The kitchen is separated from the living-room, and from the dining-room as well. And have you noticed the careful placing of the closets in the downstairs bedrooms? They act as sound-deadeners, insuring quiet for the occupants of the rooms.

SPEAKING of closets, have you observed that there are two linen closets downstairs? One of these closets is located in the hall and is very convenient for bed linen and blankets. The other is in the bathroom and is

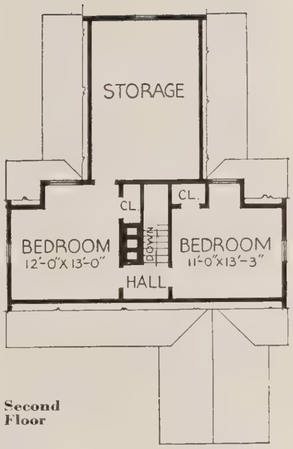
Bildcost Gardened-Home Plan No. 609



Basement



First Floor



Second Floor

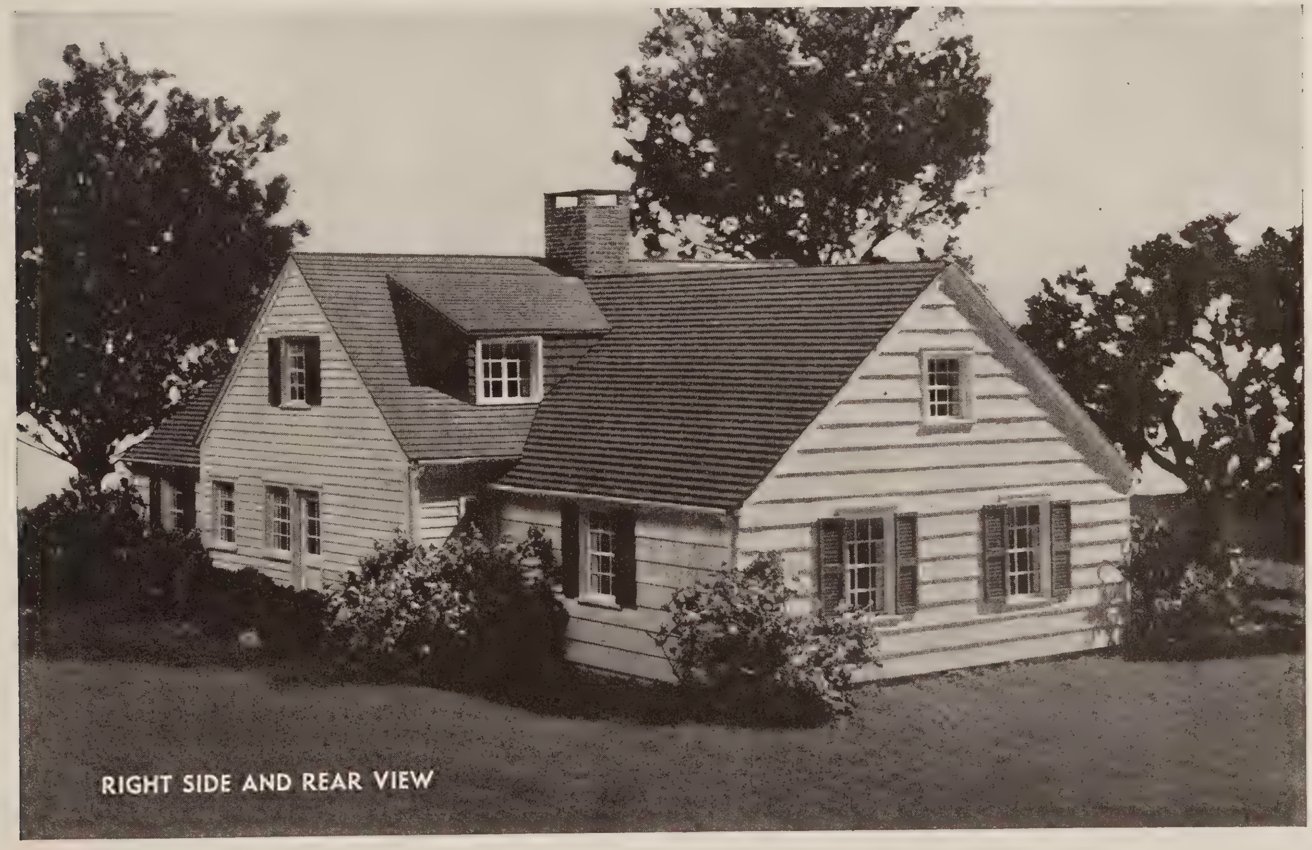
handy for towels, soaps, cleansers, and other bathroom supplies. There are linen drawers in front wall at head of stairs as well.

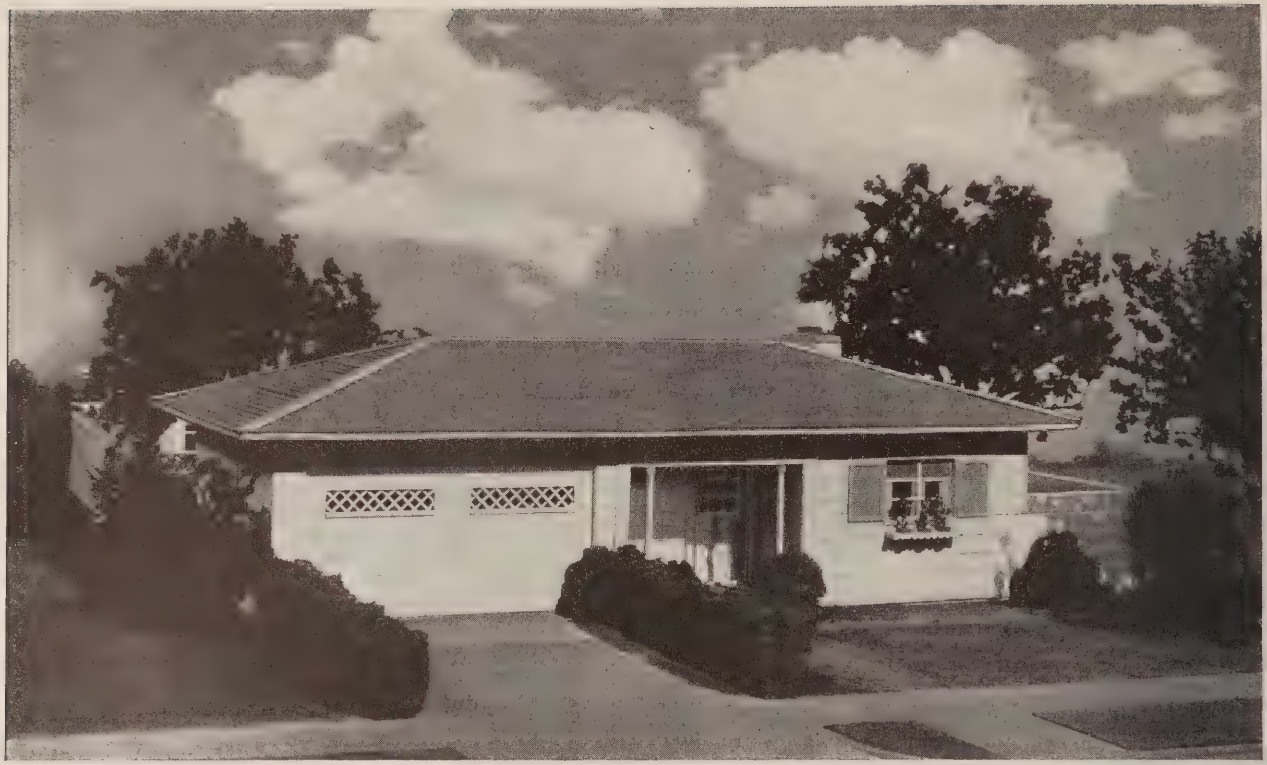
OBSERVE in the photographs that the general outline of the floor plan is arranged to fit on the typical small rectangular lot. There are stock materials used thruout, an economical feature. Suggested materials are wood shingles and white clapboards. This finish is the most fitting, as well as the least costly, for this architecture.

It's possible, however, to substitute common brick as an exterior wall finish, since its rough texture is similar in effect to the rough texture of shingles. If your taste is for a more trim wall finish, white-painted clapboards also could be used on this Bildcost Gardened Home.

- How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering List of Materials and working drawings, appears on the last page.

There's nothing to be hidden at the rear where the appearance is as neat as the well-planned room arrangement is efficient





The unusual treatment of the attached-garage doors and the recessed front entrance are attractive features for this courtyard house

A Modern Hacienda

Designed by Architect Howard I. Shaw

A gardened home in truth—to be built around your garden. Every room is only a step from outdoors

OFFERING complete privacy to every member of the family for both outdoor and indoor living, the patio of this home not only creates an ideal spot for resting and lounging, but makes virtually every room a garden. Large French doors open from the patio into the various rooms.

Lowness and clean-cut horizontal lines of the house suit it to placement on any 50-foot lot. It's extremely simple to landscape by concentrating the planting in the patio, placing the house near the street to minimize lawn and driveway.

Due to its rambling plan, the house would usually be expensive to build. This has been overcome by careful, intelligent planning and by eliminating ornament and expensive detail. The floors, placed on a concrete base, enable the house to be kept low and make expensive excavation and underpinning unnecessary. This feature insures against termites and dry rot, as well as the annoyance of sagging, squeaky floors. Eliminating the costly basement and heater space has been accomplished by using a new-type heater placed on the ground-floor level. A great deal of floor space, moreover, is saved by the elimination of the usual halls and corridors.

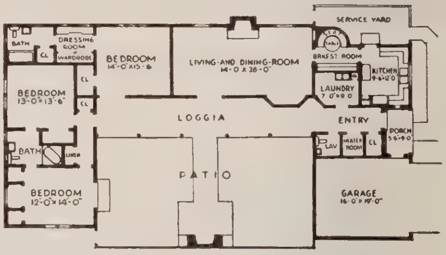
BECAUSE wood and brick will always be charming and lasting, we've planned the house to employ these materials. Notice that the wood is carried in long, horizontal lines. Spots of painted brickwork here and there give the walls texture and charm.

THE rooms of the house have been treated simply and tastefully in plaster and paper. The large bedroom, opening into the patio and outside as well, has its own dressing room and bath. This room, particularly large and comfortable, is blessed with a large, roomy closet and ample wardrobe space. The dressing table will be found ideal, with its mirror flanked on either side by windows. Both the master bedroom and dressing room are to be papered. The master bathroom, with gleaming tiled walls and separate shower, soiled-linen hamper, and clean-linen cupboard, will be found extremely complete. Light and air from two sides complete its excellence.

A square tub, especially handy when a shower is included, is installed in the other bathroom. Use of brass pipe insures against possible rusting and corrosion.

The small hall has a service closet for the vacuum cleaner and brooms, a large linen closet, and a telephone niche.

The kitchen has been made very efficient by the use of modern materials and equipment. A large ant-proof cooler in conjunction with the refrigerator will be appreciated.



Floor Plan From Left Side

Numerous roomy cupboards with their flush wood doors easy to keep clean solve the storage problem. A long, tiled drainboard will please any particular homemaker. The kitchen location, opening directly to a drying and service yard on one side, the laundry and entry on the other, is extremely advantageous. The laundry is completely equipped with shelf and broom space, laundry trays, washing machine, and ironing board.

THE attached garage will be fully appreciated in bad weather. Such is its design that there is no possible danger from fire or automobile odors; and no matter if rain or snow is falling it's pleasant to walk directly from the house into the garage.

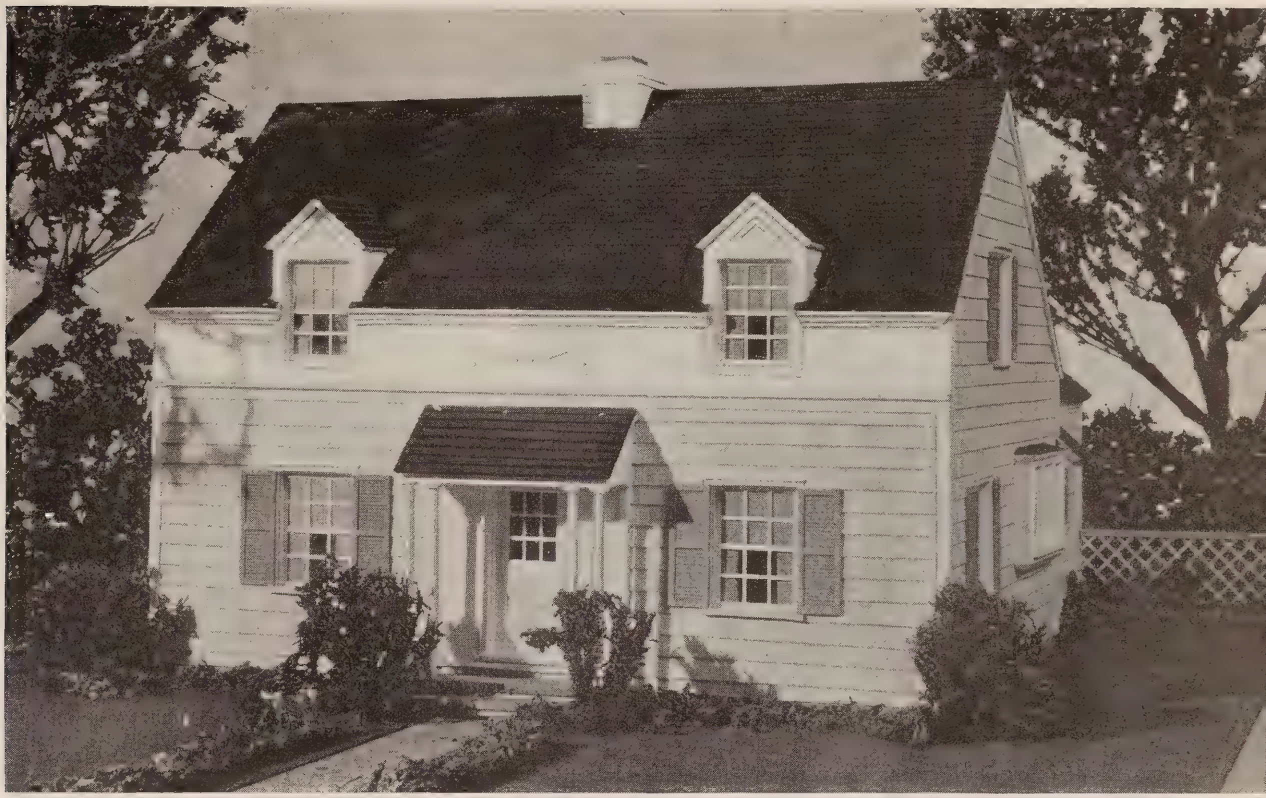
The entirely inclosed patio, with its privacy for rest and play, is ideal for the busy mother who wishes to keep her children off the street and to have a watchful eye on them. Even from the laundry she can see them and enjoy the garden as well. The patio has been further enhanced for enjoyment by the inclusion of an outdoor fireplace in its wall. Truly a gardened home.

Bildcost Gardened-Home Plan No. 701

Living Room for All

Designed by Architect Willard B. Smith

Flexibility of room arrangement is the theme of this Modern Colonial house



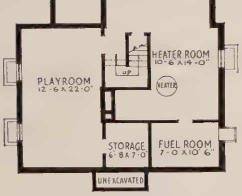
Modern Colonial, the exterior expresses in its trim lines the true character of this home, efficient, comfortable, and built for family use for a lifetime. For exterior wall-finishing, shingles, siding, or brick is suitable

THE outstanding characteristic of this Bildcost Gardened Home is the flexibility of its room arrangement, which is designed to provide comfortable living and work space for all the family in all its different stages. We realize how subject to change these requirements are as the children arrive, grow up, and go out to make their own homes; but we seldom definitely plan our homes so successfully to accommodate this normal growth and shrinkage.

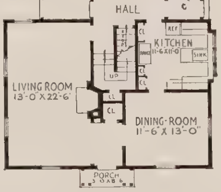
Here, in this Modern Colonial home, however, such changes are thoughtfully and well provided for. As an instance, a study of the floor plans (below) will show you that if and when required, four bedrooms are available thru the use of the all-purpose room in the first story as one of them. At a later date this room can serve just as well as a library, workroom, guest room, or hobby room. Similarly, the living-room is so arranged as to provide ample furniture groupings for simultaneous use by everyone, without crowding.

The dining-room, in relation to the kitchen, is well placed to reduce to a minimum the work of serving the family's meals. In the kitchen itself nothing has been neglected or overlooked in the comfort and convenience possible with today's equipment. The kitchen work can proceed in the smooth-flowing style of a production line, from the refrigerator and preparation center near the service door to the range, and, last, to the serving center next the dining-room door.

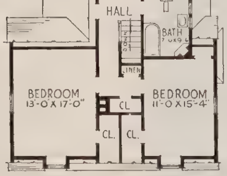
● How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. Also see coupon, for ordering Lists of Materials and drawings, on the last page.



Basement



First Floor



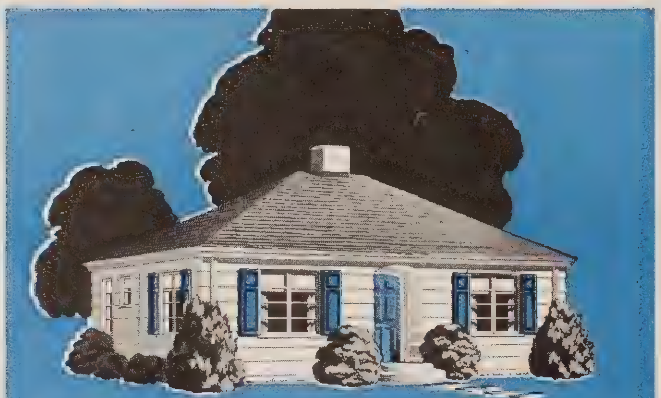
Second Floor

Rear and Side View

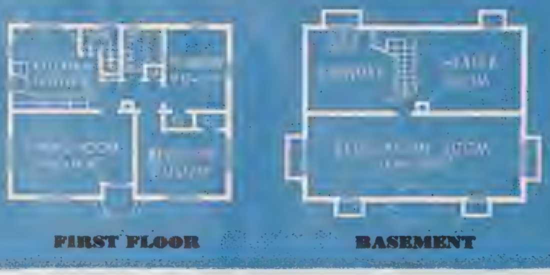
Bildcost Gardened-Home Plan No. 703

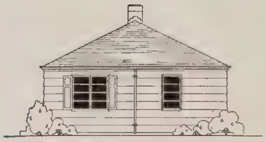
4 Low-Cost Homes

Several years ago we set out to do for the small-home builder what the Mayo Clinic does for a sick man—give him the work of top-notch American architects at a price he can readily afford.

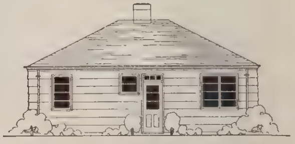


Bildcost Plan No. 961A





Right Side, No. 1

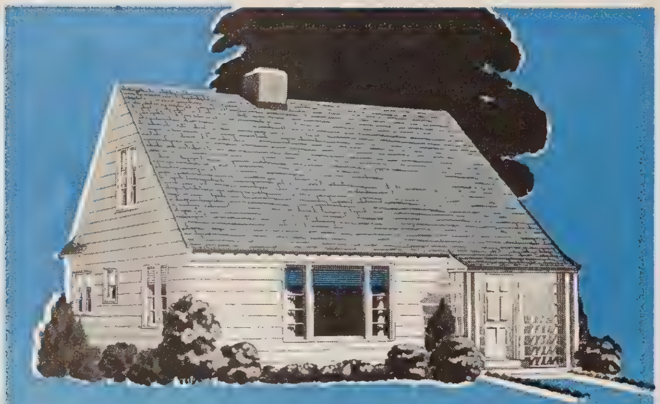


Rear, No. 1

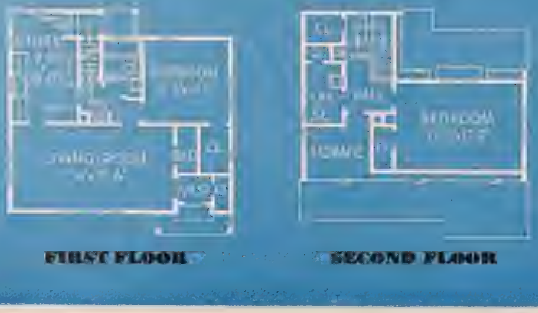
1 PERHAPS YOU ARE ONE of the thousands of young people in these United States, now renting, yet financially able to swing into home-ownership. You might own your own home by *investing* little, if any, more than you are now *spending* for rent.

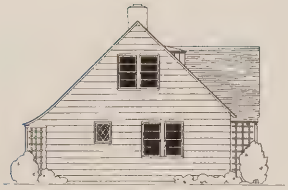
Someone has estimated that you can afford to purchase a home at a value of from two to two and one-half times your annual income, and that means that you could own any one of the homes pictured on these two pages with an annual income of around $2,000.

The cottage at the left is lowest-cost of the four—straight lines, simple masses, little but very effective ornamentation, all make for economy in construction. Horizontal lines are emphasized by the hipped roof and the window divisions, and they spread the home out on the ground. Note the recessed, sheltered entrance; the large windows. There is cross-ventilation thru the rooms; and all, you'll note, are corner rooms! Bedrooms have complete privacy, and there's a snack nook in the very modern kitchen. This is all in outside dimensions of only 30 x 24 feet. In the basement you'll find the laundry and heater rooms on one side, on the other a big rumpus room where you can entertain your acquaintances.

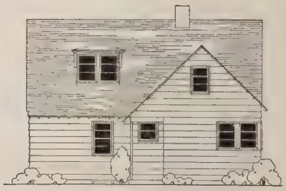


Bildcost Plan No. 961C





Right Side, No. 3



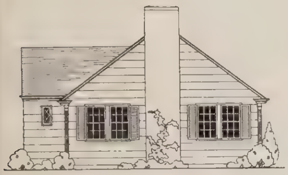
Rear, No. 3

3 THIS TWO-STORY DESIGN is also American Colonial. It'll cost a little more to build than Homes 2 and 4, and about a third more than No. 1. Outside dimensions are 30 feet by 27 feet 6 inches.

Tho the arrangement is standard, there are distinguishing features. The projecting lattice entrance porch is effectively tied to the main structure thru an extension of the house roof; it's not a nailed-on afterthought. The front living-room window is in effect a picture window with two outswinging sidelights for ventilation. The rear extension on the kitchen provides dining space in the corner without interfering with the efficiency of the kitchen plan. The large bed closet in the living-room gives capacity for four regular occupants and still room for overnight guests.

A fireplace might be added in the living-room in place of the chimney and linen closet. The basement can be divided into a laundry, furnace room, and recreation room. At small cost the second-floor room can be made into a nursery, sewing room, or boy's stateroom. The lavatory serving the second floor can be converted into a full bathroom. All of these additions can be made without any structural changes in the original construction.

We offered such minimum-cost homes at the usual Bildcost Plan fee of $5 each for the first set of plans. . . . Here, to further meet this need, are 4 low-cost homes by Tacoma's Silas E. Nelsen, who is nationally noted for packing useful room and sparkling detail into minimum cost. These 4 small-home plans meet FHA standards (as do all Bildcost Gardened-Home Plans).



Right Side, No. 2

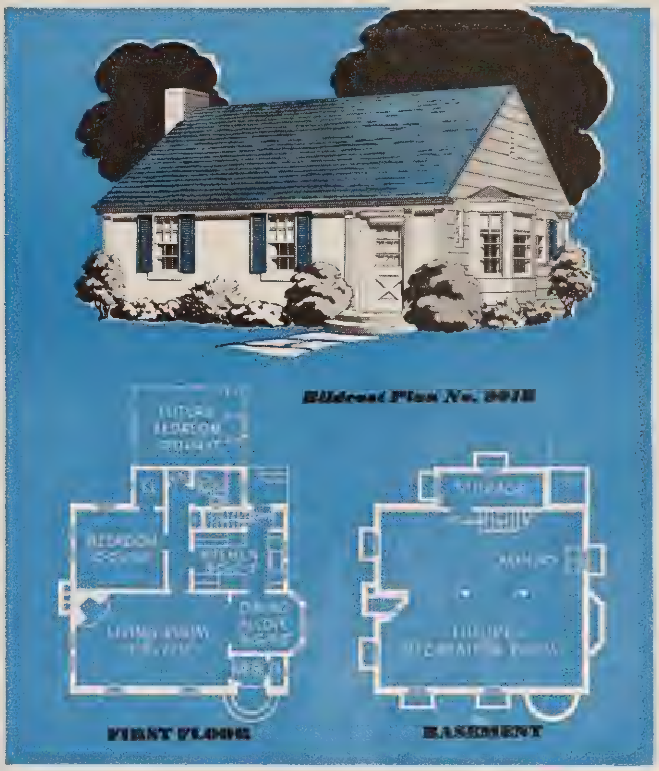
Rear, No. 2

2

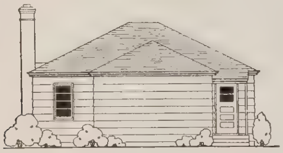
HERE'S THE DESIGN FOR the young couple who expects its family to grow a little in the next 10 years. Cut a door thru the linen closet and the future bedroom fits naturally to the rear, close to the bathroom.

There's a corner fireplace in the living-room considerably larger than that of home number 1; a vestibule and coat closet; and a dining alcove with a large bay window. The alcove is just a step from the U-type kitchen. The stairway to the basement can be reversed to make a way into the attic for an additional room or for storage space.

All American Colonial are the brick front, shutters, small-paned windows, and roof lines, while we have the refinements of the bay window, high, plastered entrance doorway, and moulded cornice. Paint the walls, brick, and wood an oyster white and the roof a light tan or green; set the house among trees and shrubbery a little back from the street—and you'll then have real livability within outside dimensions of 30 feet 6 inches by 29 feet. Oh, yes, plans for all of these houses include detailed blueprints for garages that have been especially designed to complement the homes.



Right Side, No. 4



Rear, No. 4

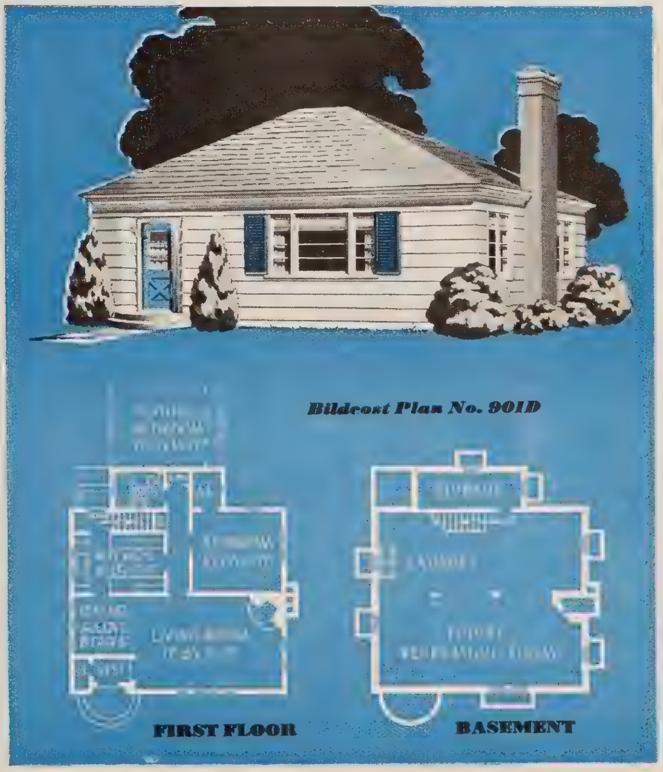
4

THIS HOUSE IS QUITE similar in appearance to No. 1. It's very Modern: almost every line is structural as well as ornamental, and there's little extra detail. Constructed in wood, it's neither narrow nor box-like.

The floor plan is a reverse of No. 2 but does not include the bay window; that is, the front door, dining alcove, and kitchen are on the left hand instead of the right, and the living-room and bedroom are on the right instead of the left. Any home plan can be reversed in this manner if it'll fit the lot better.

Note that in this arrangement, as in the others, all bedrooms are well separated from the living areas, yet are handy to the bathroom and linen closets, and so studied that furniture can be placed two ways. Not often in such small homes do you find a 21-foot-long living-room such as provided in Bildcost Homes 901B, C, and D.

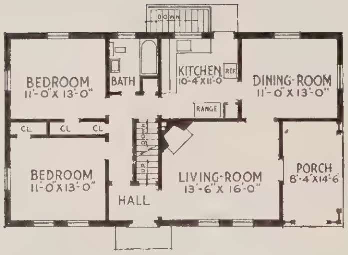
● How much will it cost to build these homes in your community? See introductory pages for information on the method of estimating it and for an explanation of the Bildcost Plan. Coupon for ordering List of Materials and plans will be found on last page.



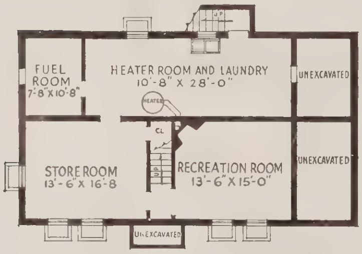
Boasts All Virtues

Undoubtedly the home which fits the needs and desires of the largest number of families in the United States is the five-room, one-floor-plan house at moderate cost. Here's that kind of home. It's small but it has none of the ordinary small-home faults

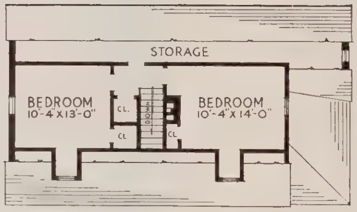
Designed by Architect Elliott Lea



First Floor



Basement



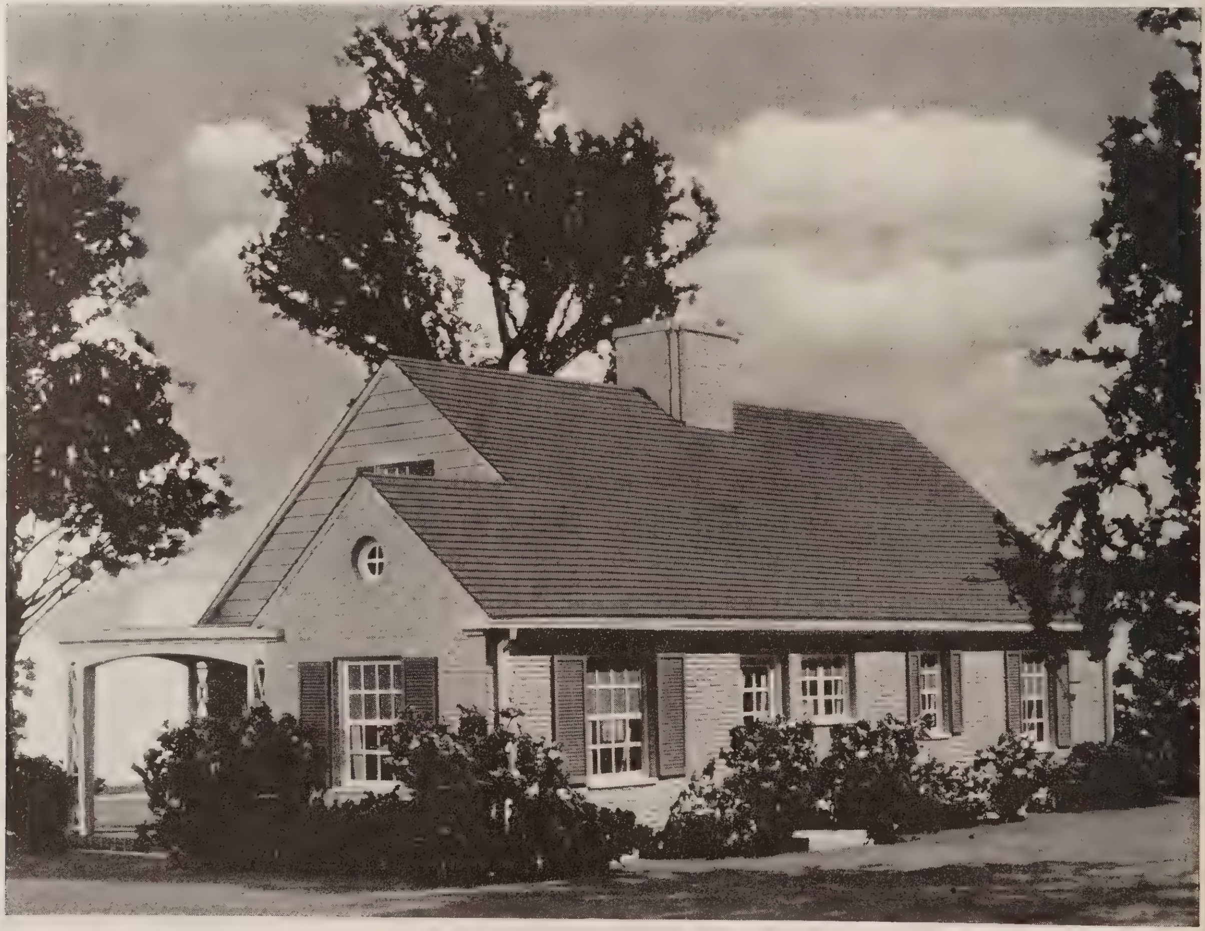
Second Floor

The plans for this home include working drawings for a 2-car detached garage in harmony with the house

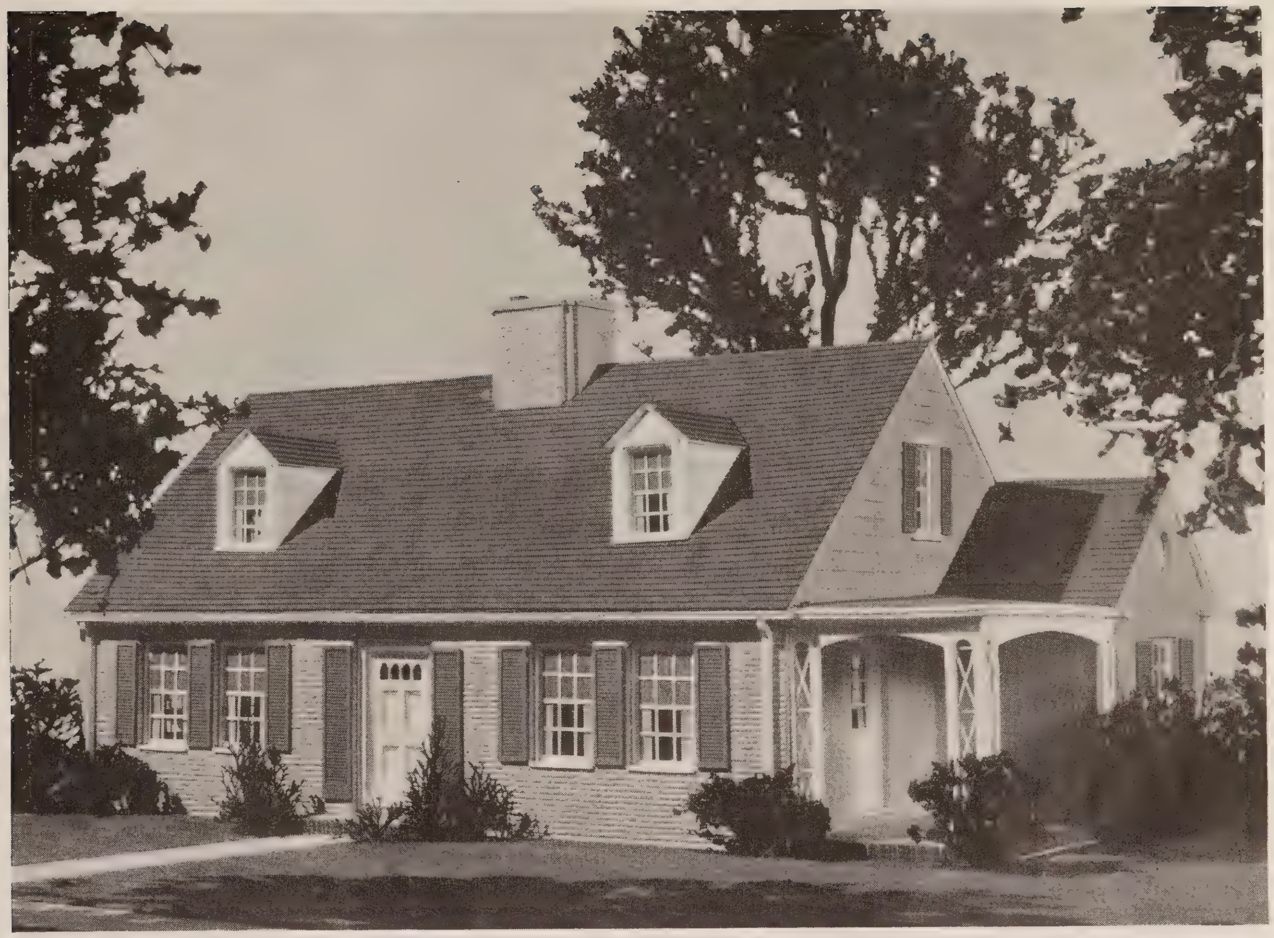
UNDOUBTEDLY the home which fits the needs and desires of the largest number of families in the United States is the five-room, one-floor-plan house that will cost about $5,000 to build.

Such a house, if given architectural distinction, soundly built on a well-located lot, and provided with a logical manner of expansion, becomes practically ideal in that it will possess all the virtues that a home should have. It will be comfortable, commodious in its accommodations for a family of average size, satisfying in its beauty, easy and economical to maintain; and, because of its wide appeal and suitability to a large number of families, you will find it a sound and readily salable investment.

Right side; rear. The plan revolves about a center hall giving direct access to all parts of the house



Bildcost Gardened-Home Plan No. 705



This modified Cape Cod cottage is comfortable, commodious, satisfying in its beauty, very easy and economical to maintain

Left Side and Front View

This *Better Homes & Gardens* Bildcost Gardened Home is a house of that type. In its exterior are the lines of the well-known and admired Cape Cod cottage, but it diverges from this type in its use of brick for the outside walls. Of course, it might just as well be built with shingled or clapboard sides and thereby be true to the type. However, brick is a very popular material, and fits very attractively into this design.

Common brick, then, preferably of the sand-mould type; a shingled roof stained green or brown; green shutters; and snow-white window frames, exterior doors, cornice, porch posts, dormers, and gable ends is the color scheme.

TO GET the full effect of the long, low lines of this home, it would be best to place it on a wide, interior lot. But it can be readily adapted to a corner lot as well. Or, if only a narrow, interior lot is available, the house is readily adaptable to it also, merely by turning the dining-room and porch end of the house to the street—for notice that this side is quite attractive, and affords a direct entrance to the living-room.

The plans for this home also include, at no extra cost, working drawings for a 2-car detached garage in harmony with the architecture of the home itself.

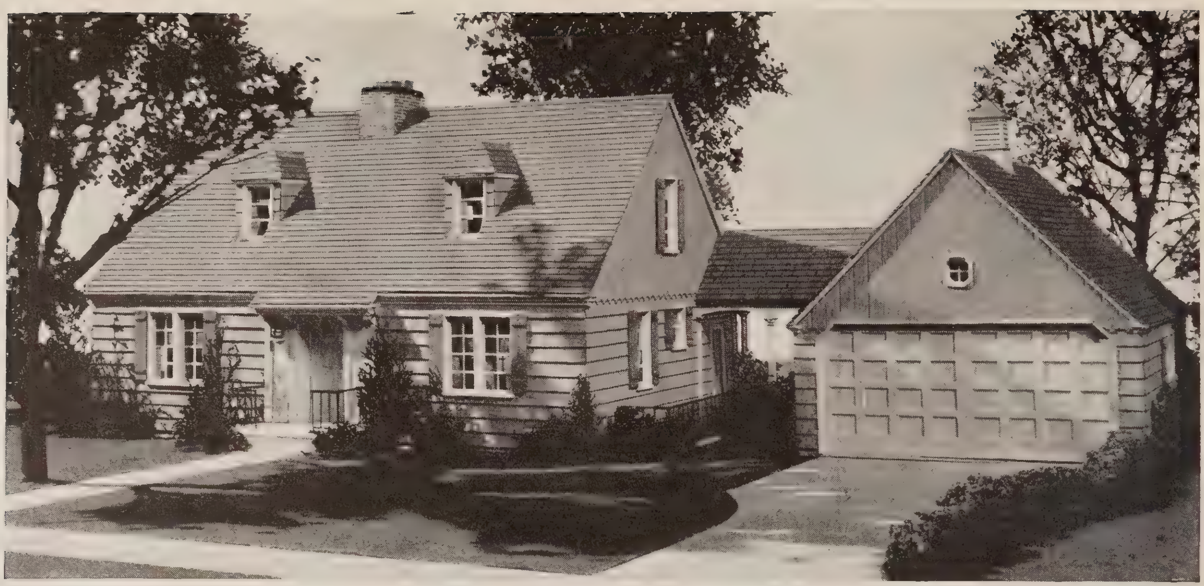
The floor plan revolves around the extremely desirable feature of a central hall which gives direct access to all parts of the house—and serves to separate and insulate the sleeping portion of the house from the living part.

A common fault of the average small home is that there is too intimate a connection of the parts devoted to different, and often conflicting, uses. Note that the hall permits direct communication between all rooms, and that it's possible to go from one room to any other without passing thru a third, with the exception of the dining-room. In this hall, too, are two linen closets, one between the two bedrooms and serving them, and that next to the bathroom provides a handy storage place for towels and other bathroom supplies. Or, if desirable, you could transform this closet to a shower stall for the bathroom. Each of the bedrooms has a closet of ample size, and in the kitchen we find a broom-and-sweeper closet.

This Bildcost Gardened Home is a complete, four-bedroom house with commodious facilities for entertaining as well as everyday living, but the second floor may be left unfinished and the recreation room in the basement may be omitted if economy of the present so dictates. There will still remain, for the average family, an adequate and well-appointed home.

● How much will it cost to build this house in your own community? See explanation which appears on the Bildcost introductory pages. Coupon for your convenience in ordering working drawings will be found on the last page.

Bildcost Gardened-Home Plan No. 705



The house and garage connected by the porch arcade form a pleasant group of interesting shape

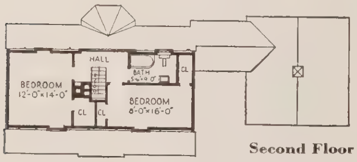
Yesterday's Charm

Today's Convenience

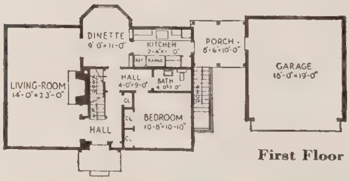
Designed by Architect Silas E. Nelsen

THIS house and garage ensemble could be made home to any American family anywhere because of its design, its arrangement, its conveniences, and its completeness.

Place it in almost any setting—out in the field or in a wooded spot—and it will immediately nestle into its location and attract attention—first, because of its interesting mass, and then, because of its simple, interesting details found in the dormers, wrought-iron rails, windows, and shutters.



Second Floor



First Floor

The exterior is designed in a Modern Colonial manner, with the lower portions of the house having siding of clapboard or shakes. The eaves are low to the ground. The dormers, as you can see, are just incidents in the roof, thus maintaining the broad roof lines, a necessary part of the charm of the Early American cottage.

The living qualities of this home are noticeable from the first entrance into the front hall, for here you'll find a closet for coats and umbrellas, an interesting Colonial stairway to the second floor, and a large cased arch opening to the living-room.

The living-room, you'll see, is exposed on three sides, with windows so arranged that they're pleasing on the exterior, yet inside permit an interesting arrangement of the furniture. The fireplace wall has been carried out in the Early Colonial manner, with vertical knotty-pine planks of random width. The same material encases the fireplace, which was the heart of any early home.

The garden side with its bay window is charming

The dinette shown is ample for the average small family and is especially picturesque in that it projects beyond the main wall of the house in an octagon fashion, making one end practically all windows. This dinette can also be used as a pantry or serving-room; for larger dinners, when the whole family comes home, must need be eaten in the living-room. This room is made more interesting and complete by the two little china cupboards on each side of the kitchen door, with their open shelves and scalloped edges giving the room real charm.

IN THE kitchen a long, narrow workroom has been combined with efficiently laid out cupboards and cabinets, enough to delight any homemaker. There are drawers, cutting boards, metal-lined drawers in compartments, coolers, and ample space for storing kitchen equipment and dishes. On the range wall is a large closet for brooms and mops, with cupboards next, built to the level of the range, making a handy arrangement for preparing food; and just next to the range, a place for the refrigerator. Such an arrangement makes a most satisfactory combination, according to modern kitchen-planning experts.

The small rear hall is a worthwhile convenience in that it opens from the dinette and the front hall to the basement, to the first floor, and the first-floor bedroom. Study the plan and you'll see that the first-floor bedroom is completely isolated from the rest of the house, and yet convenient to any other room.

In connection with the building of any home, *Better Homes & Gardens* recommends that you secure the services of a recognized architect. Not only can he give you authoritative information on the work that you intend to have done, but his supervision of the actual work will be worth many times the proportionately small fee that he will charge.

- How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. A handy coupon, for your convenience in ordering Lists of Materials, will be found on the last page.

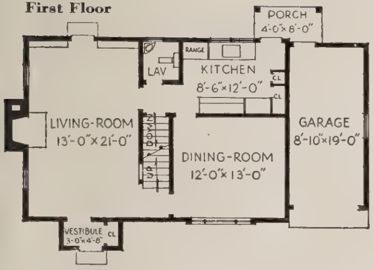
Bildcost Gardened-Home Plan No. 706

A Friendly House

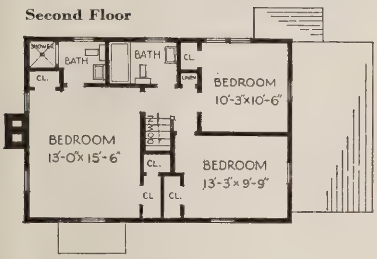
It has qualities that improve on acquaintance

Designed by Architect Theodore Whitehead Davis

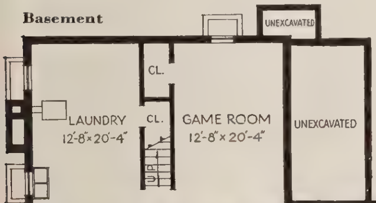
First Floor



Second Floor



Basement



BESIDES its trim beauty, this small home has qualities that will improve with acquaintance. It has been planned for the average American family of two adults and two children, and will accommodate them with a maximum of privacy in the smallest space, and at low cost within the means of many.

Framing is carefully planned. There are two steel beams which run the width of the house on either side of the stair well, permitting the floor joists to be run across them, all in the one direction, both upstairs and down. Aside from the original low-cost carpentering, this permits an inexpensive and efficient plumbing and heating installation by eliminating the cutting and weakening of joists.

The roof line has been kept simple, not only for beauty but to make costly flashing of valleys unnecessary. There's hardly a break in the four walls, either, and tho the large casement window in the front wall is set out a trifle to give a bay-window effect, it doesn't exceed the overhang of the second story which therefore protects it.

FOR the exterior walls, we suggest narrow shingles for the first floor and wide ones for the overhanging second floor. Or you might prefer clapboards or brick veneer below. Vestibule walls match those of the first floor, and are topped with a wood facia above the height of the first story. Its floor is tiled and there is a coat closet to the right.

First-floor lavatory location is sure to be appreciated by the homemaker. It's readily accessible from living-room or basement game room, and convenient for freshening up before entering the living-room and for cleaning up the children when they come in from play.

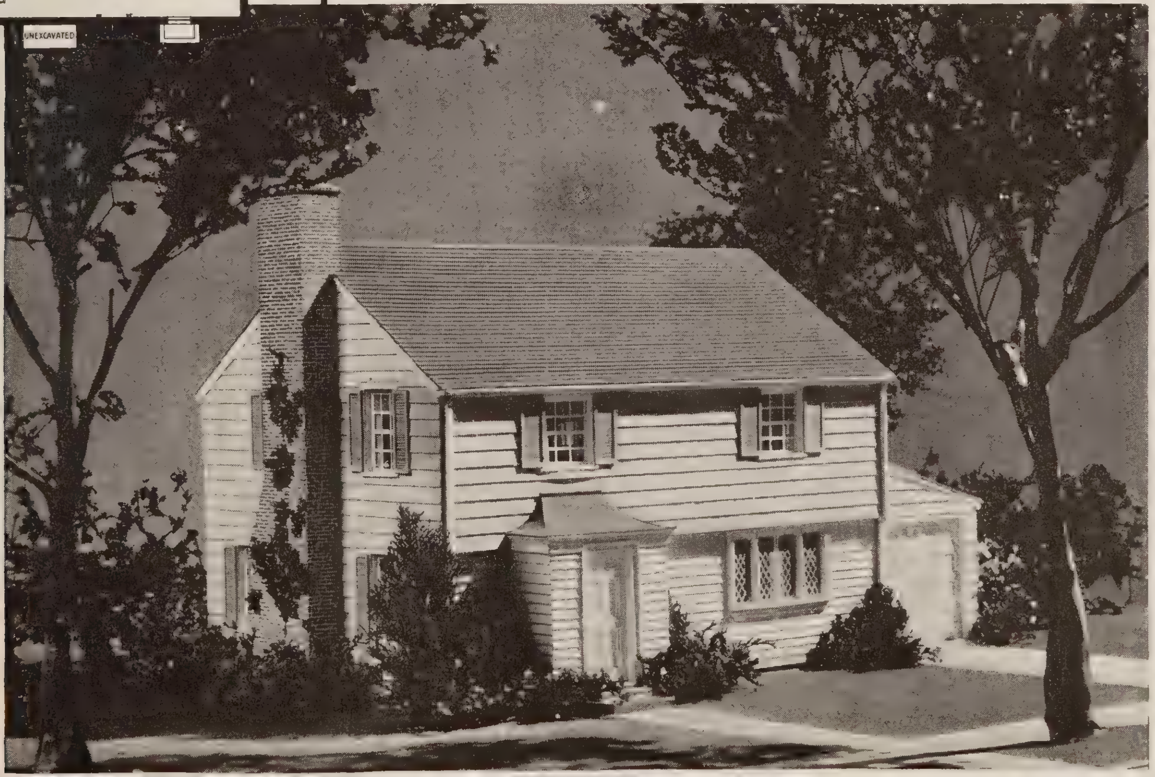
There's real luxury in the second-floor owner's bedroom. Bath with shower has only one entrance—from the bedroom. All bedrooms have cross-ventilation, with room for a double bed in the smallest, or twin beds in the second front room. The linen closet is conveniently located.

THE living-room is designed for comfort, with wall bookcases and a fireplace set against the soft color of natural pine siding, lightly waxed. Simple balusters make a grilled opening, chest-high, to light the first few steps of the stairway. Leaded glass casements light the dining-room and ornament the front of the house. Their slight out-set provides a wide window sill for plants, and there is a chair rail above paneled wainscoting about the wall.

The over-all length of the house, including the garage, is 42 feet. If a detached garage is built, the house will sit comfortably on a 50-foot lot.

In connection with the building or remodeling of any home, *Better Homes & Gardens* recommends that you employ a recognized architect. Not only can he give you authoritative advice about the work that you plan to have done, but his supervision of the actual work will be worth many times his proportionately small fee.

- How much will it cost you to build this house in your own community? See introductory pages for information about method of estimating it, and for an explanation of the Bildcost Plan. A coupon for ordering Lists of Materials will be found on last page.



Trim beauty is obvious, but there are qualities about this small home that make familiarity breed delight; the longer you live in it, the better you like it, we're sure

Bildcost

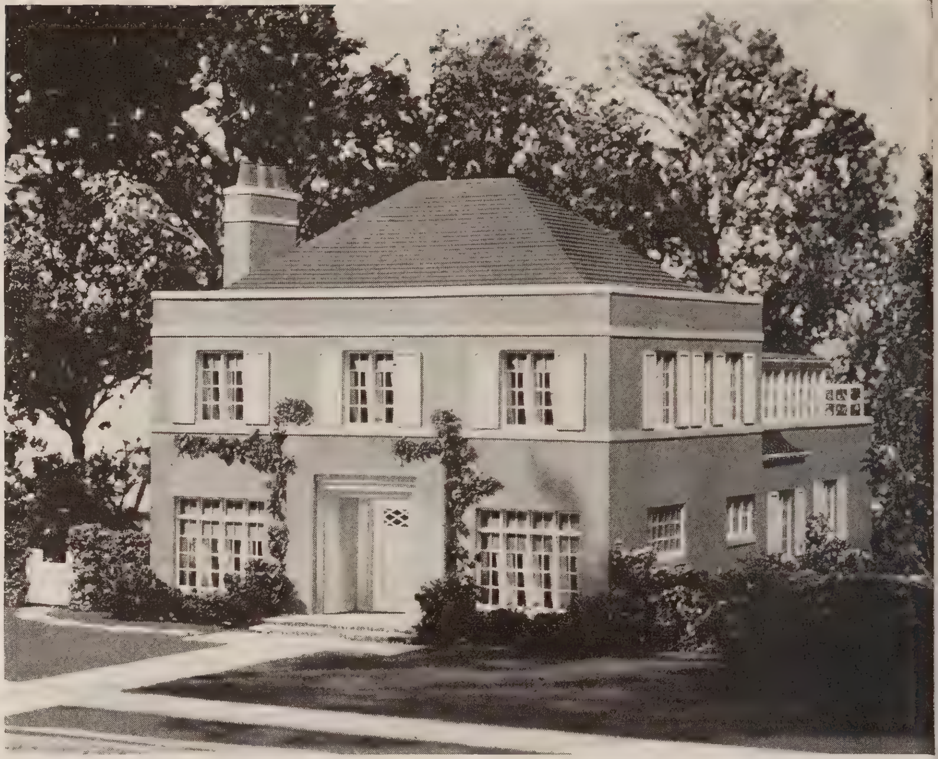
Gardened-Home

Plan No. 708

Model by Stanton B. Coffin, Photograph by Stanley

For an Up and Coming Family

Designed by Architect James Schindler

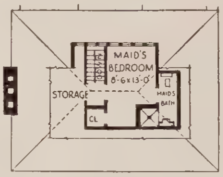


Flexibility in use is the keynote of this home, planned for a family of today

PLANNING a home today requires careful and exact thinking as the demands of the home of an alert and active family are widening and increasing all the time, and each of the rooms must be put to the maximum of use while friction between the individuals and groups is avoided.

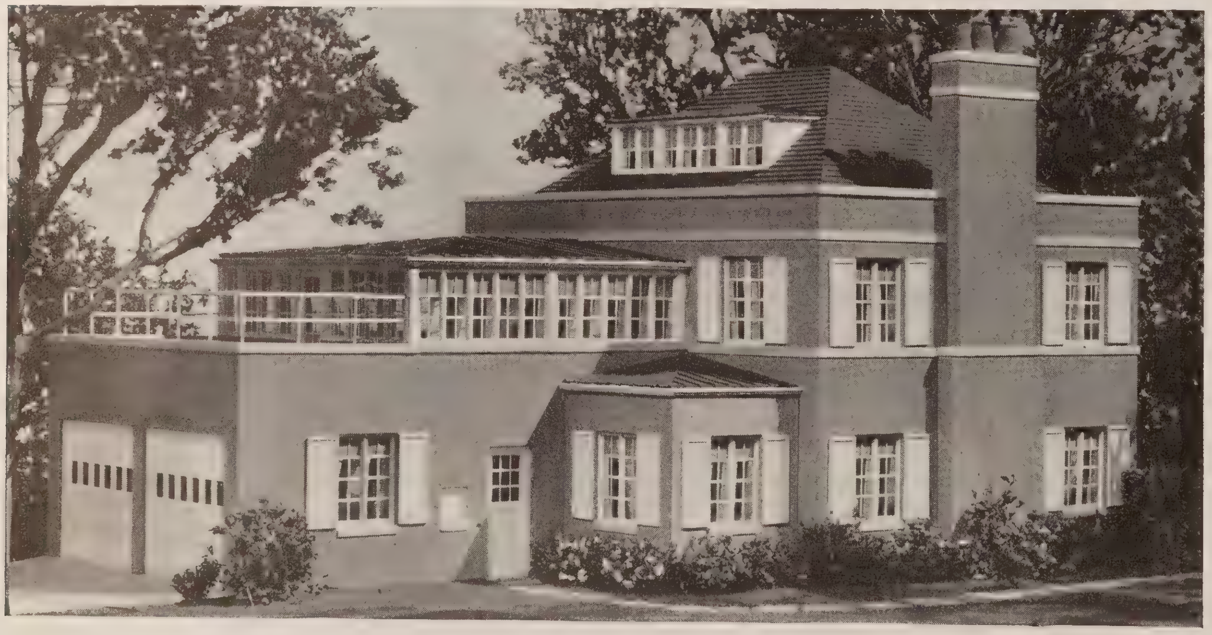
The relationship of the rooms in this plan provides for entertainment and study so that the regular routine of the family life can be followed at any time. The members' modes of living, the service problem of such a family, and the way they would circulate in the home were thought of in the abstract first, as if the boundaries of each room and its relation to the others were individual. Then the shell of the house inclosing these units of space was designed. Regency was selected as the best design because it has the atmosphere of adequacy without an appearance of waste and undue extravagance.

The exterior is of cement plaster or brick. The windows are out-swinging wood casements. An unusual feature of the plan is the stairway location back of the main hall for privacy and to avoid disturbing those in the living rooms. Complete privacy can be enjoyed in the inclosed porch. A dumbwaiter is located where it can serve the basement, the breakfast nook, the sun porch, or the recreation room. Younger members of the family can entertain on the sun porch, and father can have his friends for cards in the recreation room, while mother enjoys her guests in the living-room. Other guests might be entertained at the same time in the seclusion of the study.

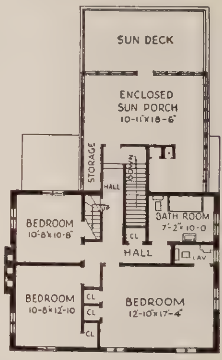


Third Floor

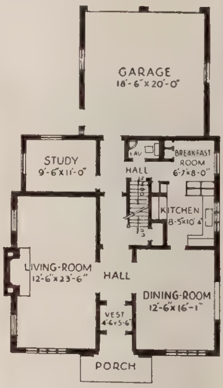
Left rear view. This home was visualized for the average American family coming up in the world. Sun porch and sun deck are at the rear where complete privacy is enjoyed
↓



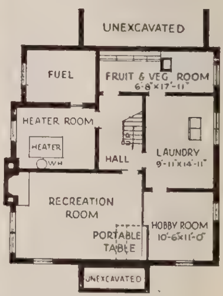
Bildcost Gardened-Home Plan No. 709



Second Floor



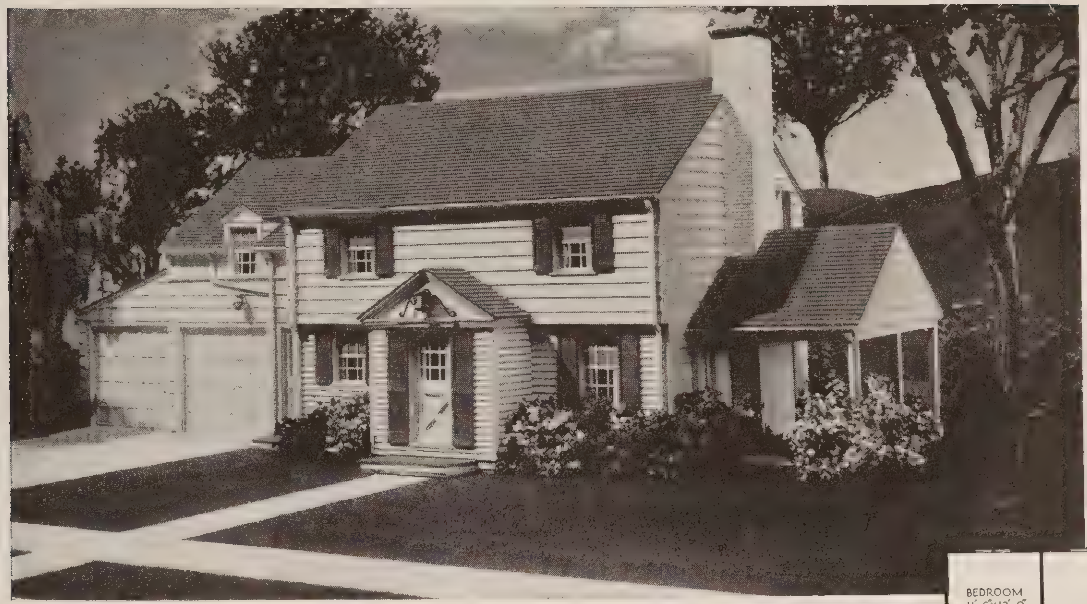
First Floor



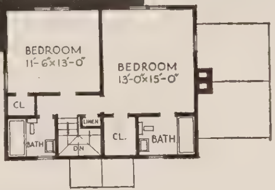
Basement

Why Build for Only Now?

Designed by Architect Theodore Whitehead Davis

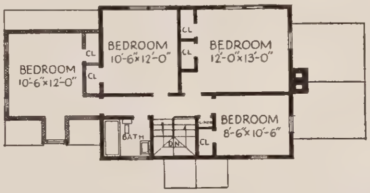


A charming house to be built unit by unit as the family grows larger and the pocketbook fatter

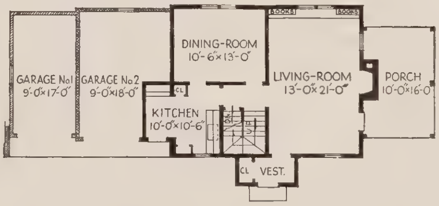


Second Floor

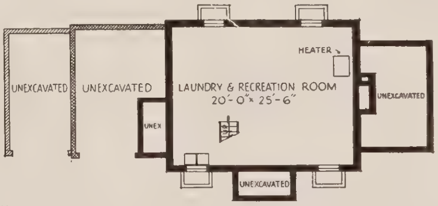
There are two second-floor plans for this home to give you a choice of two or three bedrooms with convenient closets, and one or two bathrooms as may be required



Alternative Second Floor



First Floor



Basement

HERE, we believe, is a lifetime house, a house that will be as comfortable for a family of five as for two, as charming in 50 years as it is today. Already its design has withstood the test of time. You can trace it directly to early New England days, and to those forthright God-fearing colonists. Yet houses with its 200-year-old simplicity are cherished today while 50-year-old structures stand vacant. And tomorrow, when many of our present-day homes will seem as outdated as their Victorian predecessors, houses like this will still be cherished, for the beauty of simplicity endures.

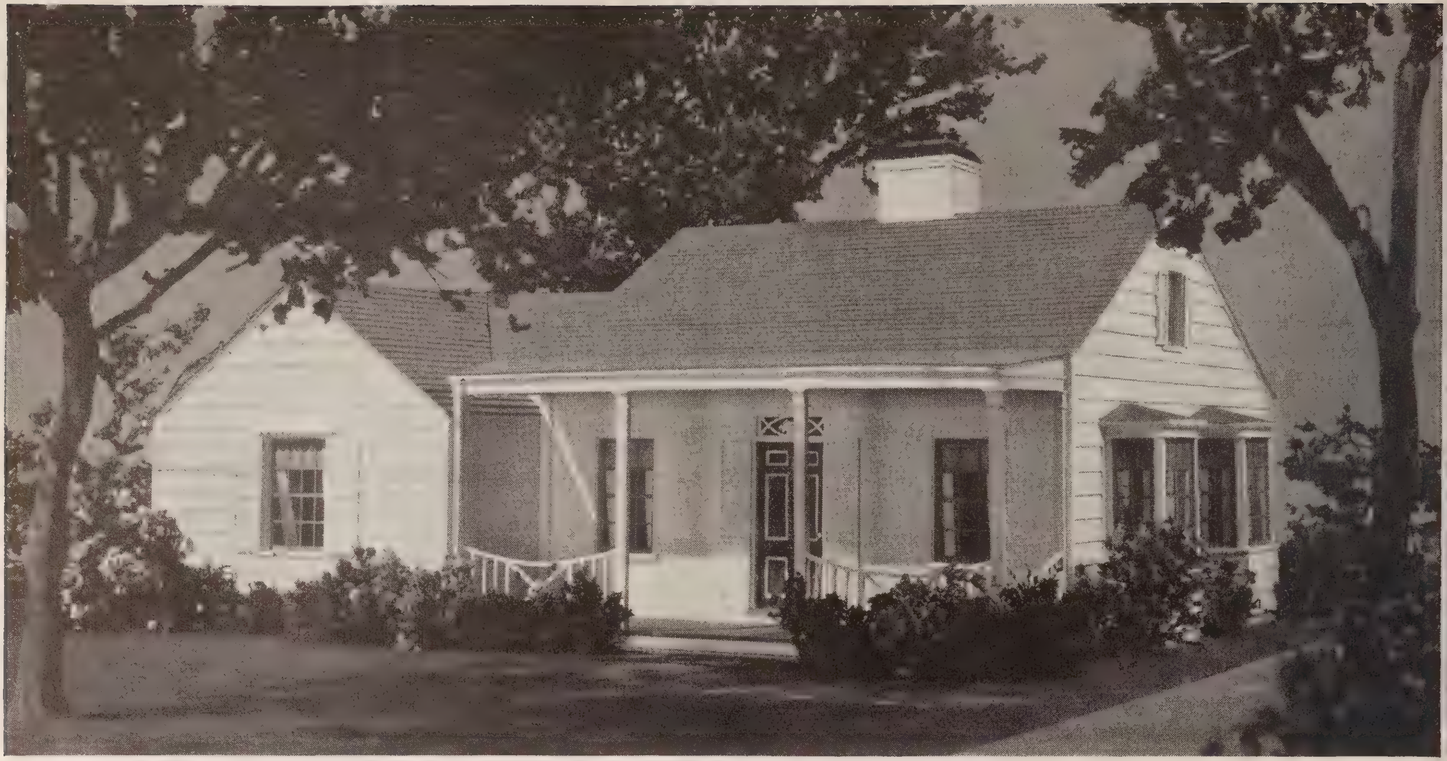
Wisely, this house has lifetime construction as well as design. The central unit is simple in outline. There are no expensive roof valleys and no breaks in the four walls. The interior living-room wall rests on a central steel girder and forms a solid bearing partition up thru the house. Its area is unbroken except for one door and the high grille of turned wooden balusters that permits light to the stairway. The stairs, accessible from all first-floor rooms, are set to one side of the steel girder and are doubled back; hence a minimum number of joists are cut. Both factors make for low costs and strength.

Wisely, too, the central unit can be built without appendages until your pocketbook can stand them. You can do without the porch and vestibule. Of course, if there is a vestibule, the living-room fireplace and walls of books will commend themselves more surely to your guests.

IN THE basement, which is excavated only under the original unit, we have one room as large as the dimensions of the house, by virtue of the steel girder support. This room can be subdivided to heater, laundry, and recreation rooms if desired. Of course, as a matter of economy in original construction, you may dispense with this partitioning of the basement until some later time.

The garage with the bedroom over it can be added by simply blocking up one dining-room window and converting the bedroom window into a closet door. This is provided for by the numerous windows at the rear in both these rooms. The second garage addition is a minor job. Note that when the addition is made, you sacrifice none of the closets, none of the comfort of your main unit. Any simple wood finish is suitable for the outside walls. Shingles and brightly painted shutters will age well. Clapboards or a combination of clapboards and shingles is also good. And when you've finished, you've a home whose traditional simplicity is growing more popular year by year. See Bildcost explanation on introductory pages.

Bildcost Gardened-Home Plan No. 802



This Bildcost Gardened Home is really small, really low-cost, but so flexible it'll house six

The Two-Faced Home

Designed by Architect Verna Cook Salomonsky

THIS Bildcost Gardened Home is designed for the people who want to own their homes but haven't much money to spend. It's small, yet will house as many as six without confusion. It may have either two or three bedrooms, and if necessary, will snuggle down on a 40-foot lot. Amazingly compact, it has plenty of closet space, an abundance of air and sunshine in every room, ample wall space for furniture placement, a well-organized kitchen, bay windows to bask in, and generously proportioned rooms.

The plan is carried out so that either the porch or bay-window elevation can face the street. For the former, with a driveway, you'll need a 55-foot lot; for the latter, without a driveway, not more than 40 feet. The house itself is only 33 feet wide the narrow way.

If you need only two bedrooms, the house then boasts a separate dining-room, with direct access from the living-room or kitchen. When overnight guests drop in, two closet doors in the dining-room open to lower twin beds. If three bedrooms are needed, the dining-room is eliminated in favor of the third. Meals are then served in the dining alcove.

THE excavated portion of the basement is divided into two generous rooms, one for heating plant and laundry, the other for storage or a game room.

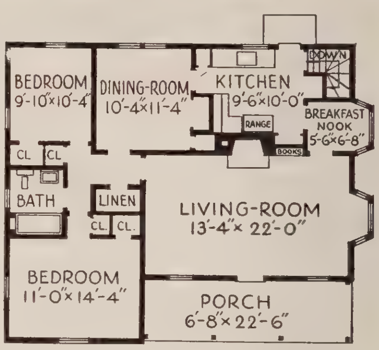
On the exterior, side-wall shingles, shutters, and trim are white, with a natural weathered-gray shingle roof. The tomato-red entrance door adds a striking color note. Window sash are a subtle dark gray.

Inside you will find nicety of scale. Detail of the trim, mantel, stairway, and bay windows is delicate; and because of this "reduction of scale," rooms seem larger.

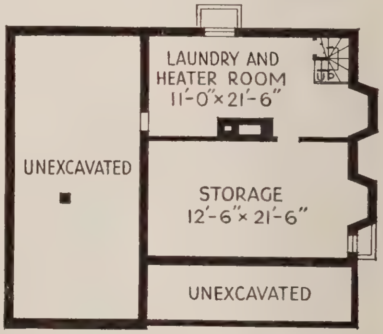
You'll find this an honest house with no sham or tricks. In its directness and modesty lies its charm.

● How much will it cost to build this home in your community? See the introductory Bildcost pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. Coupon for convenience in ordering Lists of Materials and working drawings appears on the last page.

Bildcost Gardened-Home Plan No. 806

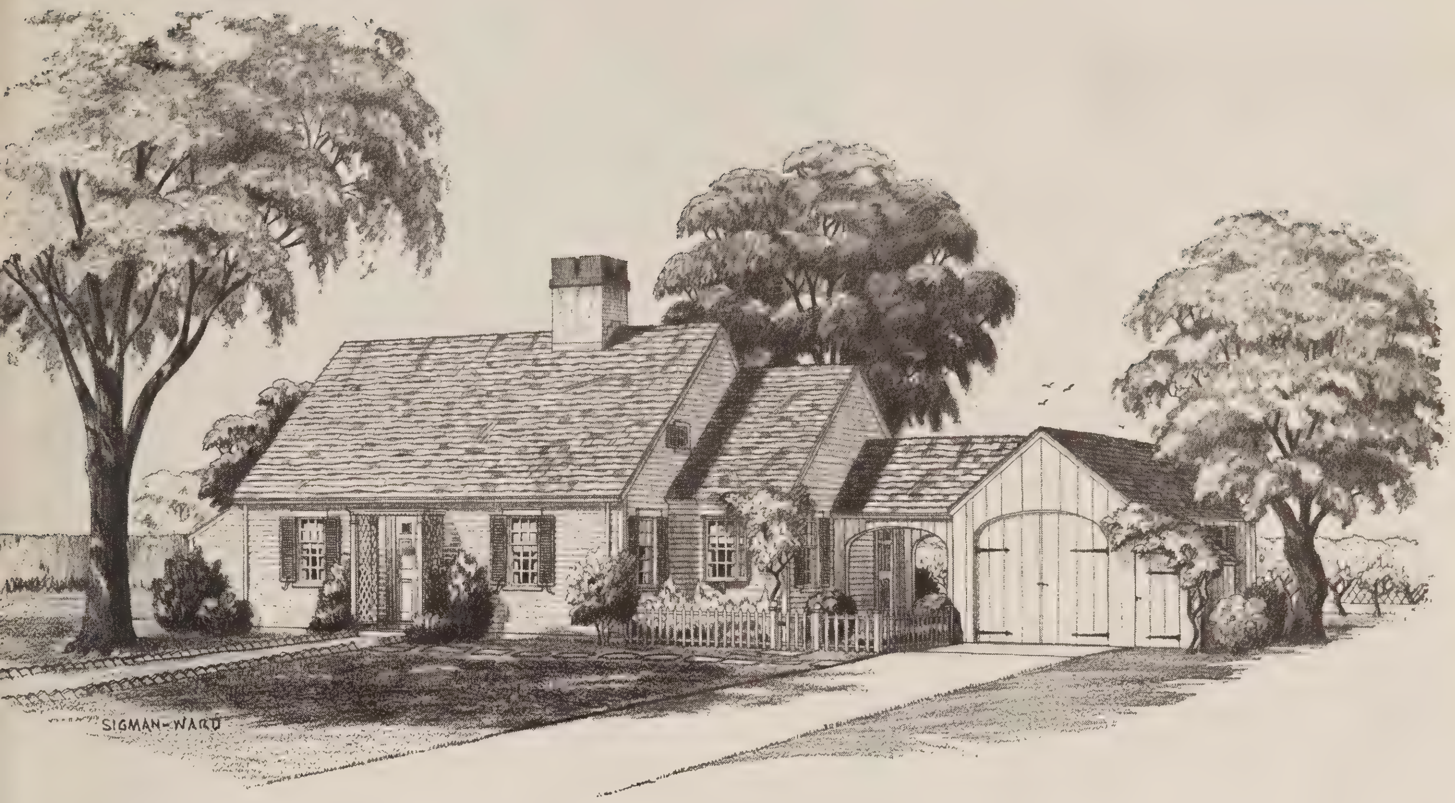


First Floor



Basement

This house is designed so that either the porch side (at top of page) or the bay-window end (at left) can face the street. If you choose the latter, house will snuggle down on a 40-foot city lot



In this convenient arrangement, house, garage, and tool shed all form one correlated unit as if under a single roof

Cape Cod for Three or Four

Designed by Architect Royal Barry Wills

A GLIMPSE of a white doorway—bittersweet in the garden—white clapboards in the sun—beach-plum jelly in the windows—and over all the salty tang of the sea! Such is Cape Cod—that long, crooked arm of sand stretching from the canal on one end to the Provincetown art colonies on the other.

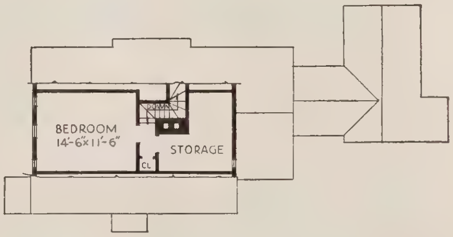
Lining the quiet, shady streets of the villages are many houses as unpretentious as they are livable. Simple, serene, and honestly built, they're as compact as a ship's cabin, but many times more comfortable. Critics may poke fun at rambler roses, picket fences, and elms, but such things *are* Cape Cod. The charm of the houses seems to lie in their almost perfect scale. Even a casual glance will show their adequacy for human needs. Windows are generally snugly fitted under the eaves, chimneys are fat and high.

This little house is in the best Cape Cod manner, even to its latticed entrance—perhaps an addition of the mid-McKinley period, but quite in keeping as to size and scale. The roof has the true low pitch of a Cape Cod house, and the chimney is in the four-square brick-pot style typical of the South Shore and Cape houses. The dining-alcove bay window probably never was found in a really old house, but there are many of them in the Cape today, filled with amber and ruby-red glass. Note the typical small windows in the gable ends.

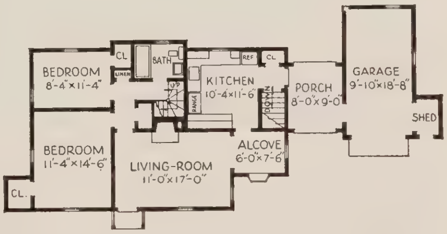
THE living-room is finished in honey-colored pine sheathing, and the dining alcove has a dado of pine and hand-blocked wallpaper above. Bedrooms are well separated from the living quarters, and the bathroom is easily accessible from the second-floor bedroom. The bedrooms are papered with Colonial papers and the floors over the house are painted and spattered.

There's a partial basement, but an alternate plan eliminates it entirely. In this house, when no basement is used, the kitchen is rearranged and a heater room installed off it. Laundry equipment goes where the basement stairs are now.

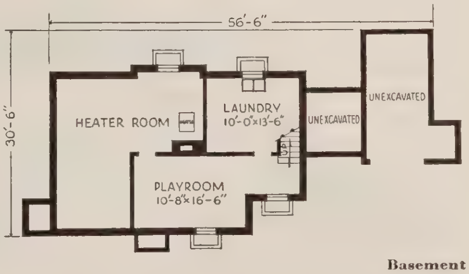
- ● How much will it cost to build this house in your community? See introductory pages for explanation of Bildcost Plan, and convenient coupon for ordering Lists of Materials and working drawings on last page.



Second Floor



First Floor

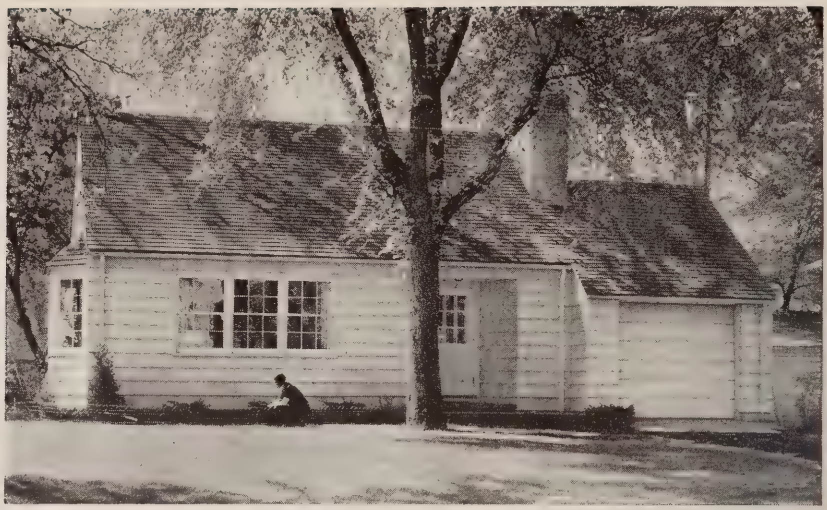


Basement

Bildcost Gardened-Home Plan No. 807

One for Your Money

Designed by Architect James A. Brunet



Bildcost Plan No. 808 provides living quarters for four or five

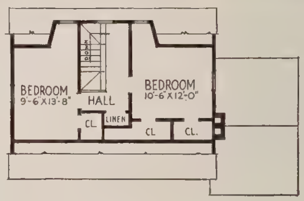
HERE'S the home for the young man with a growing family—who's no plutocrat. It's small, but designed for big-living capacity.

The exterior is simple for sake of economy, and the entrance is designed to give the extra service of an added window, with glass panes to allow sunlight into the vestibule. Shingles on the side add an attractive texture, windows are larger than usual, and the attached garage enhances the apparent size of the house. They're tied together with the chimney centering in the garage roof.

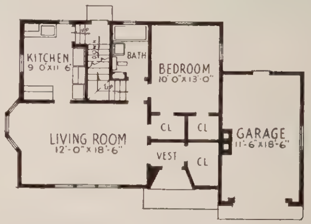
There's table space in the kitchen, while the large bay in the end of the living-room accommodates a drop-leaf table for special occasions. In the downstairs bedroom there are two closets. The large vestibule closet provides storage for "active" equipment of tennis and golf, as well as hats and coats. A full basement provides generous laundry space, even for drying clothes. There may seem to be too much closet space, but that's the secret of being able to accommodate a family in comfort and convenience.

● How much will it cost to build this home in your community? See introductory pages for information on how to estimate it and an explanation of the Bildcost Plan. Coupon for convenience in ordering Lists of Materials and working drawings will be found on the last page.

Bildcost Gardened-Home Plan No. 808



Second Floor



First Floor

Modern Rides Out of the West

Designed by Architect Richard J. Neutra

ARCHITECT Richard J. Neutra was asked to design the first Modern house of our Bildcost service because his style isn't "arty," isn't striving for shocking departures, but rather is a result of using the new materials of construction in designing a house in which to *live*.

All traditional designs have a basis in functionalism. Elizabethan England and Norman France have heavy timbers since they were available for the chopping, and it was easier to use these timbers, filling in the spaces between with stone and plaster, than to saw the oak into boards. Mediterranean homes were of masonry or stucco because wood was entirely too expensive there. The stucco eroded with the rains, so wide eaves prevented this erosion and at the same time protected from the hot sun.

Architect Neutra's design is thoroly functional. Overhanging roof and deck areas protect the interior from sun glare. Room lights are flush with ceilings. Flower boxes, roof decks, ironing board—all are built into the design. Glass walls bring the garden right into the house, and from any room "out-of-doors" is just thru a single door. The downstairs bedroom opens into its own garden, and living quarters open into a lawn patio.

Dining- and living-rooms, tho separated by draperies, can be thrown into one room for expansive entertaining. There is a downstairs lavatory which can be converted to a full-size bathroom.

● How much will it cost to build this home in your own community? See introductory pages for explanation of estimating costs and Bildcost Plan. Handy coupon on last page.

This house is unusual in that it's composed largely of window walls but is built of available stock materials

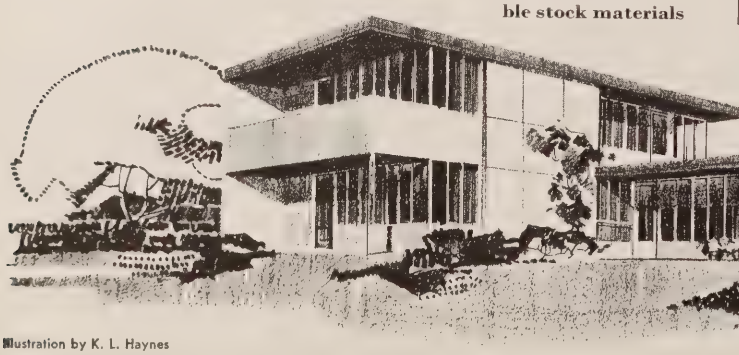
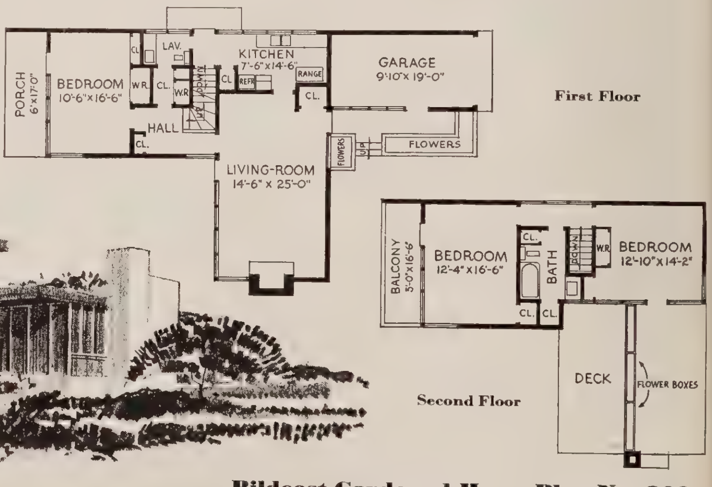


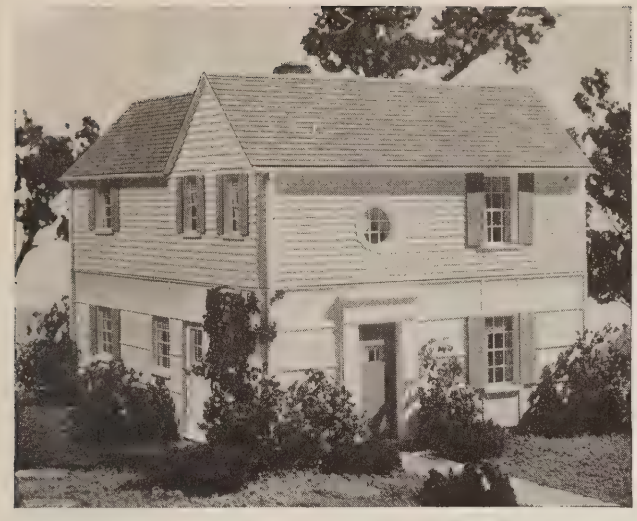
Illustration by K. L. Haynes

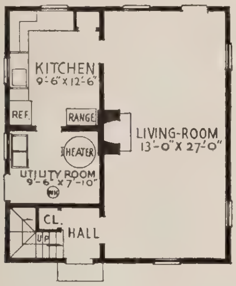


First Floor

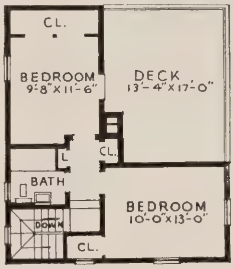
Second Floor

Bildcost Gardened-Home Plan No. 809





First Floor



Second Floor

No Waste Space

Architects Louis Skidmore and Nathaniel A. Owings

STUDY the floor plans of this home to see that every bit of space has been developed to the maximum extent and use.

The unusually large living-room has a great amount of unbroken wall space. A large, well-lighted kitchen provides room for quick meals and there is plenty of equipment and food storage space. The utility room provides better light for the laundry than a basement would, and there are no steps to climb. The heating plant is clean and compact, has a blower system, includes air-conditioning, and doesn't require a basement. Bedrooms have wall space sufficient for twin or double beds, and for dressing tables as well.

Ponderosa White Pine is used on the first-floor exterior. Simplicity of the small V-joint is a pleasing contrast to the rich shadows of the beveled siding on the second floor, and the horizontal lines of the battens reduce the apparent height. Foundation is of concrete, with the subfloor an integral part. It has membrane waterproofing, and over it a standard wood floor may be used. Exterior walls and roof are insulated. The bathroom, kitchen, and utility rooms have been grouped so that they will require only a minimum amount of piping.

Bildcost Gardened-Home Plan No. 610

Big-Looking—Small Cost

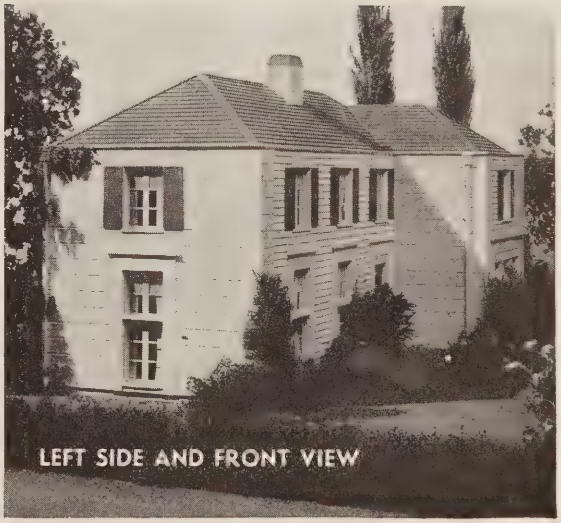
Designed by Architects Skidmore and Owings

AS WITH the home above, this house, designed by Architects Louis Skidmore and Nathaniel A. Owings, has no basement. Modern heating and winter air-conditioning facilities are compact, so the heater in this home is readily and conveniently placed on the first floor.

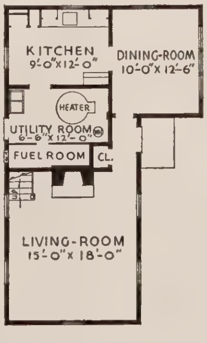
The dining-room is big, and the large living-room is arranged around the fireplace as a central feature. There is space for a breakfast table, lots of cabinets, and a built-in sink with work tables on each side in the kitchen. On the second floor are a big owners' bedroom with abundant closet space; linen closets; a built-in tub and shower in the bath; and two more bedrooms with closets. Windows provide cross-ventilation for each room, and natural light for the stairs. Wall spaces in the bedrooms permit twin beds in the largest and single or double beds in the smaller.

Exterior material is probably the least expensive stock-type of siding available, front and rear being narrow, Colonial bevel siding, which combines with broad plain surfaces of windows and door frames to give a rich contrast in light and shade. Corner quoins of V-joint wide boards, tongued and grooved, provide a definite feeling of solidity, and concealed gutters add dignity. The front door might be a Venetian red or an Italian blue, and shutters above might be made to match.

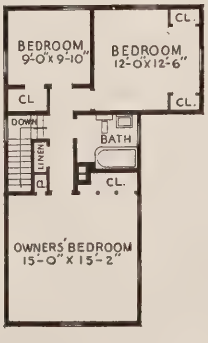
Bildcost Gardened-Home Plan No. 611



LEFT SIDE AND FRONT VIEW



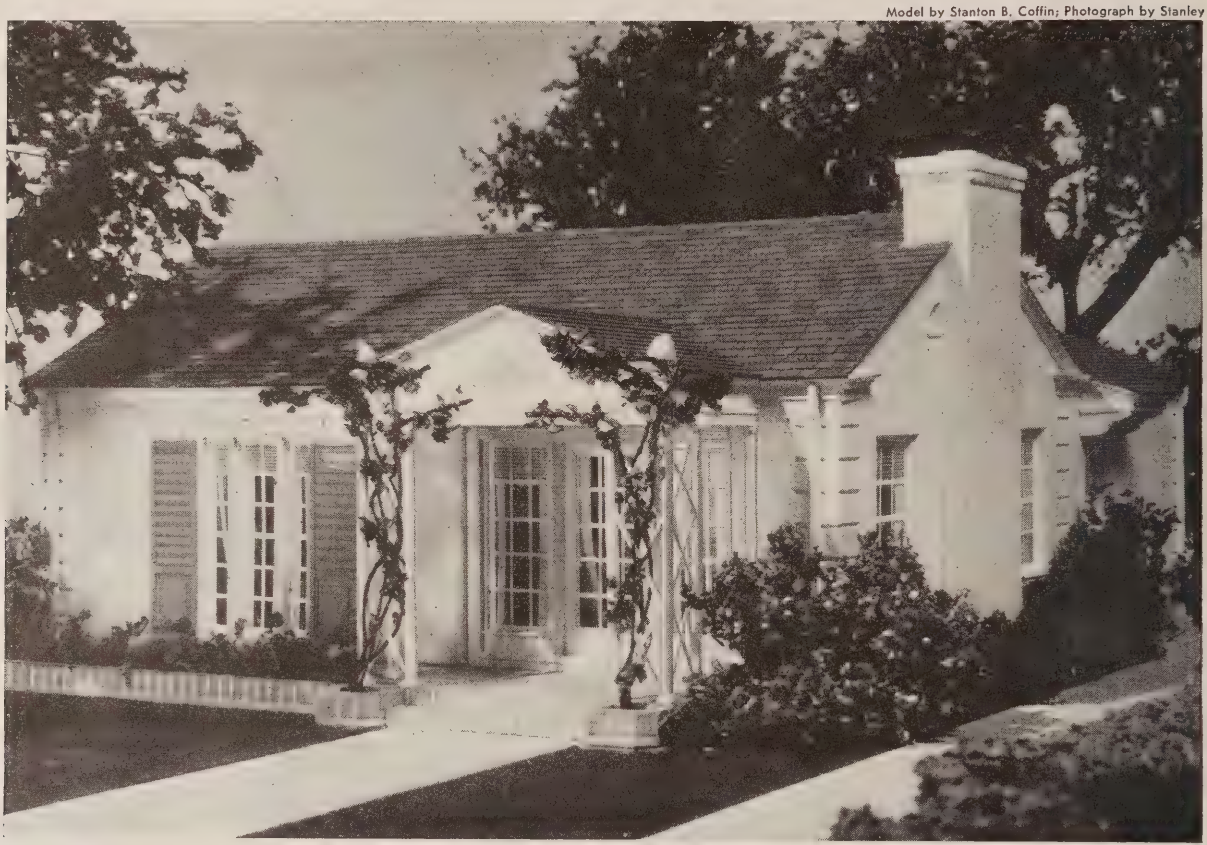
First Floor



Second Floor

Concrete Example of a Dream House

Model by Stanton B. Coffin; Photograph by Stanley



Almost too good to be true is this petite package of comfort and beauty

As concrete in convenience as in material, it nestles nicely on a 50-foot lot; has a roominess that belies its pocket-size appearance and cost

Designed by Architect Robert M. Ayres

POSSIBLY there's one home-builder in a thousand who doesn't want modern step-saving convenience and intimate comfort built into every room and passageway.

This house isn't for that person. This house is for the other 999 homemakers and their husbands—who must have a lot for their money, who refuse to walk ten feet when five would do, and who insist that beauty and utility get together on intimate terms. We believe this little home of concrete will fit the picture in their dream books.

If you're one among them—listen! You've asked for a house where stock materials were used in every feasible spot—to save money while insuring both good looks and practicability. This house employs them!

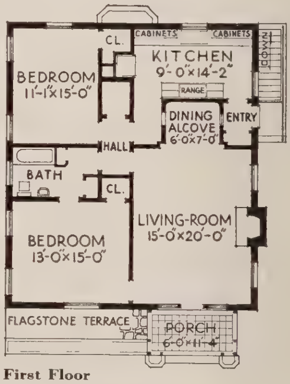
You've asked, for instance, for a maximum of light and ventilation and for compact yet attractive features. This house employs them! You've asked for inexpensive but durable construction with a low maintenance cost. This house, built of fireproof, long-lived concrete, has it! You've asked for an attractive exterior with individuality, yet without faddishness. This house has it!

Glance again at the floor plans, and particularly notice the design of the kitchen and the adjoining dining alcove.

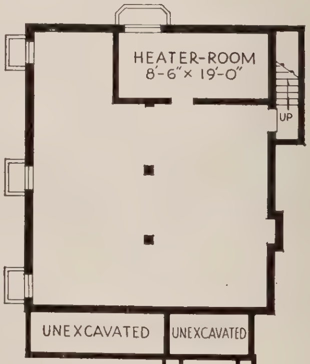
The latter is served directly from the kitchen, yet is not a part of it. It's a part of the living-room itself, so that its space adds greatly both to the appearance and size of the living-room.

THIS Bildcost Home boasts a bathroom within arm's reach of both bedrooms, yet that's almost directly accessible from the living-room, and so cleverly placed on the route from kitchen to front door that the stopover for curl-straightening when the doorbell rings requires hardly more than a change of pace.

Exterior walls are built of hollow concrete blocks, a type of construction that has proved its worth for a number of years in buildings of larger size and is fast becoming popular in home-building. The floor construction likewise is of precast concrete joists with a light concrete slab, all of which is insurance against dampness, insects, and deterioration of all kinds. It's *your* house.

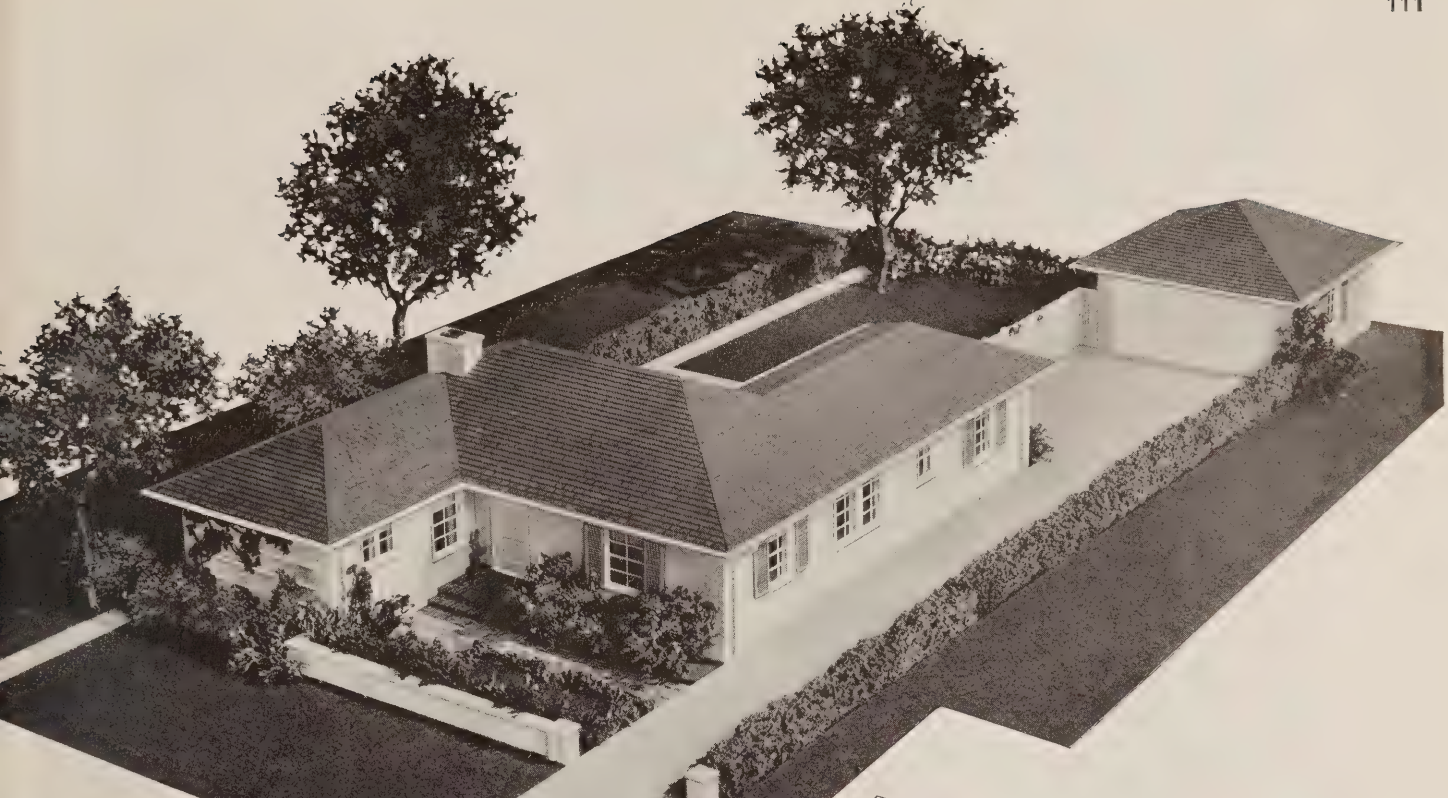


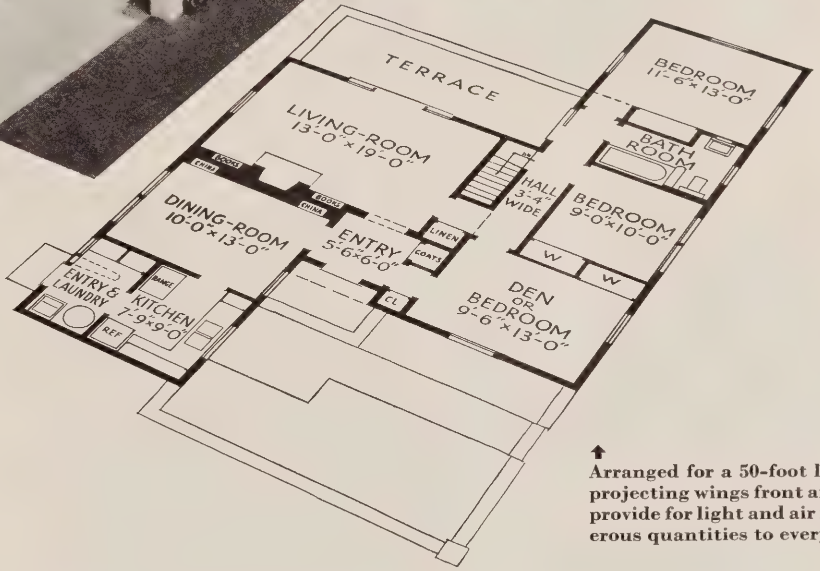
First Floor



Basement

Bildcost Gardened-Home Plan No. 810





Arranged for a 50-foot lot, the projecting wings front and rear provide for light and air in generous quantities to every room

Tailored for a Garden

Designed by Architect H. Roy Kelley

WHEN some years ago the phenomenal development of the Southwest began, the historic Spanish architecture of the country started to dominate the building field; homes, as well as other types of structures, were invariably designed in close adherence to the details of the style that was introduced by the Spanish conquerors of several centuries ago.

It was years before the builders began to realize that the background of one civilization never fits the needs and tastes of a later one. But gradually it became apparent that most of the important features of the Spanish style, well suited to its time and people, were not suitable for modern Americans.

AMONG the architects who have been working out a newer, more sensible, and satisfactory style of home design for their regions, H. Roy Kelley has been outstanding. His work is not only well known in the Southwest, but he has for several years been steadily winning nationwide competitions thru the excellence of his designs. He has the faculty of retaining the best in the traditional style of his section and blending it skillfully with the modern, crisp lines so much better suited to present-day people.

We asked Mr. Kelley to design a house in his particularly effective style for our Bildcost Gardened-Home Series, to be of the utmost simplicity, with a maximum number of bedrooms, a roomy living-room, and a structural scheme that would permit use of the most economical materials. This, his solution, is quite worthy of his reputation. The plan is compact and thoughtfully arranged to provide for great comfort and privacy. Working and living areas are well segregated; the kitchen and laundry face the street; and the living-room and bedrooms are built around a terraced garden, with direct access from any room to the garden, a highly practical and desirable layout.

One of the bedrooms is directly accessible from the front-entry hall, so if the size of the family permits, it can be used as a library, hobby room, or any other similar purpose. Provision is made in Mr. Kelley's plan for a basement room large enough to accommodate a heating plant, but any portion of the rest of the basement can, of course, be easily built to meet the owners' requirements.

The details of the woodwork are all simplified to carry out the motif of simplicity which is so desirable both from a first-cost and an upkeep standpoint. The walls and roof are their own decoration, and where accents have been used they're as simple as they are effective. The exterior walls are faced with cement stucco, which is brush-coated a warm off-white. The windows, doors, and exterior trim are wood painted white, and the shutters are painted Colonial green. The roof is of shingles or split shakes, stained a deep brown.

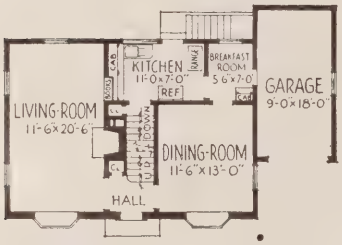
● How much will it cost you to build this house in your own community? See explanation of the Bildcost Plan on the introductory pages, and the coupon on last page.

Bildcost Gardened-Home Plan No. 811

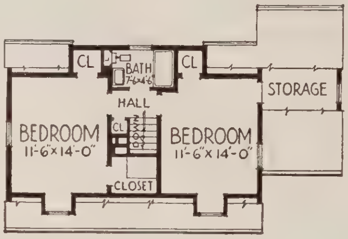
Deep Dormers and Bays

Designed by Architect Stratton O. Hammon

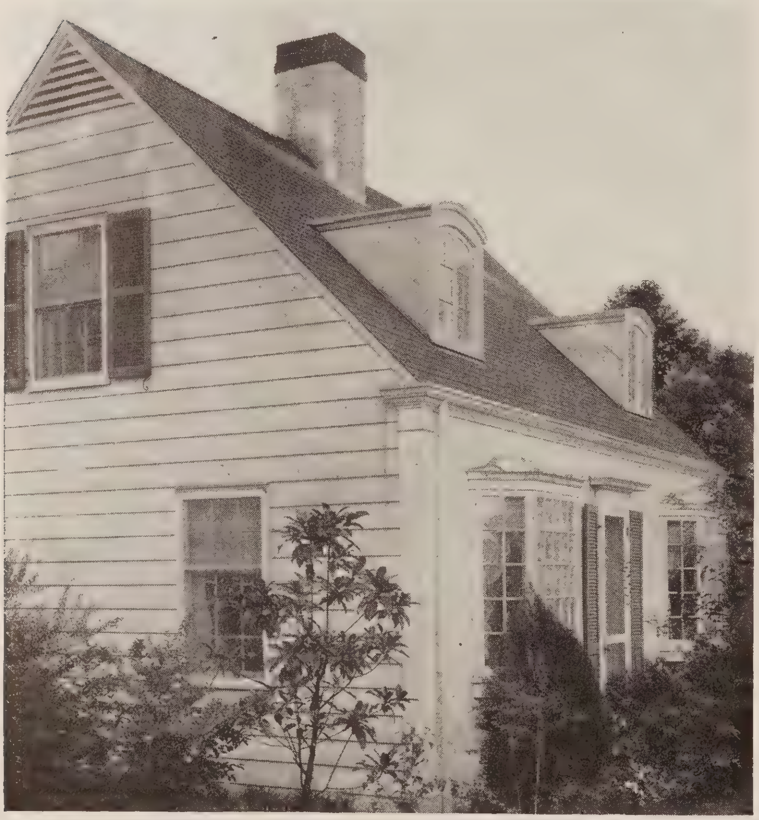
Here's a small Bildcost Gardened Home distinguished for its simple details, perfectly scaled to its size, and carefully designed for comfort and convenience for three or four



First Floor



Second Floor



The white of the walls relieved by the weathered gray roof, the classic treatment of the doorway, the small-paned bay windows, and the round-top dormers create a picture of homey comfort, beauty, and a warm welcome

THE popularity of the Cape Cod house, of which this Bildcost Gardened Home is a worthy representative, is deservedly returning all over America. Hundreds of years of experience have shown that it's by far the most economical and, in the small house, the most pleasing in appearance. Development of this style of architecture began along the eastern seacoast, from Connecticut to Maine, about 1620, and reached its beautiful peak just before the Revolutionary War.

This house could be built on a plot 50 by 75 feet. Its exterior, as you can see, is extremely simple. The clear, clean white of the walls relieved by the dark, weathered gray of the roof, the classic treatment of the doorway (with its leaded-glass transom), the small-paned bay windows, and the round-top second-story dormers create the picture. Notice, too, the fine detail of the corner pilasters that make the joint between the white-painted brick of the front and the clapboard of the side.

THE interior was no less carefully thought out than the exterior. All the rooms are well lighted and have interesting architectural details. Remember that restrained Colonial motifs and simplicity of detail give character to otherwise simple rooms.

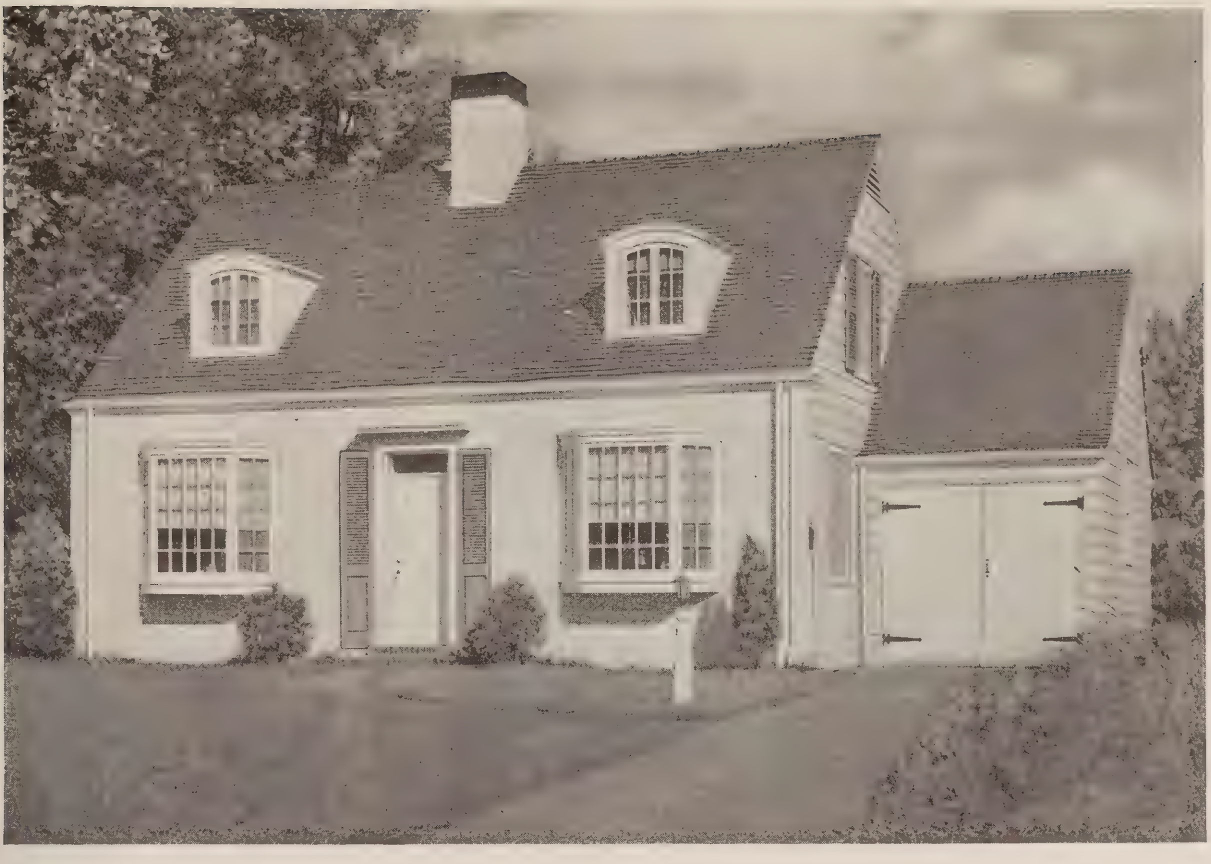
Look at the first-floor plan. It's the well-liked central-hall type but in modified form. For economy's sake the coat closet, fireplace, and part of the kitchen share the back of the hall with the stairway. Both the living-room and dining-room boast a large bay window which lends to each a cheerfulness and spaciousness that can be obtained in no other way.

Placed between the dining-room and kitchen, the breakfast room effectively chokes off the noise and odors. It also serves the general purpose of providing a convenient entry from the attached garage.

The amount of closet and cabinet space in this home should please you. In addition to the four closets and the storage space on the second floor, there's a coat closet in the entry hall, a closet off the kitchen, a large cabinet in the kitchen and breakfast room, and a bookcase in the living-room—a total of ten storage spaces for five rooms. The plan is worked out in such a way as to give the maximum efficiency and freedom of movement within the house, and at the same time the greatest privacy to all parts.

In the basement, space is provided for furnace and fuel storage on the right side of the house toward the driveway. To the rear are the laundry trays and room for laundry work. Another lavatory is provided there.

Bildcost Gardened-Home Plan No. 702



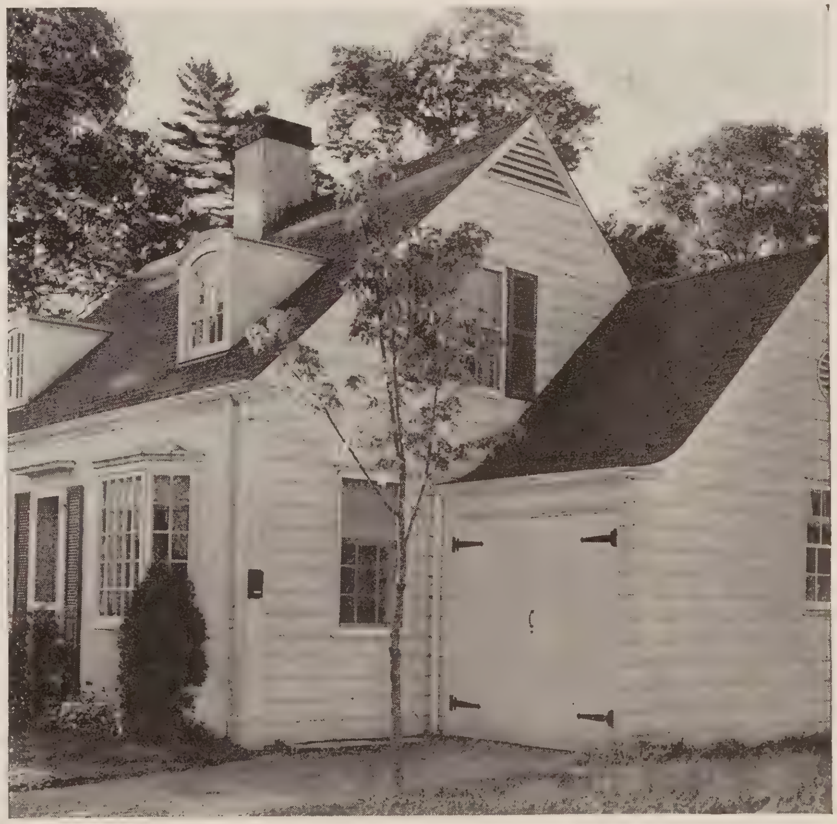
While the house is delightfully homey in appearance, bay windows, curved dormers, and transom lend notes of distinction

If we look again at the kitchen, we see that it should prove a delightful meal-preparation center as well as an efficient one. The refrigerator is placed in a line with the dining-room and breakfast room, conveniently available for distribution of foods, and to the stove as well. The sink is ranged right next to the ample counter space against the living-room wall. And above this counter space are roomy cupboards for dishes. In addition to these cupboards, there is also an attractive wall cabinet in the breakfast room, convenient to both this room and the dining-room.

THE walls have been thoroly insulated and the windows and doors weather-stripped to provide comfort at extreme exterior temperatures. The whole is a beautiful and complete gardened home that should make everyday tasks a pleasure.

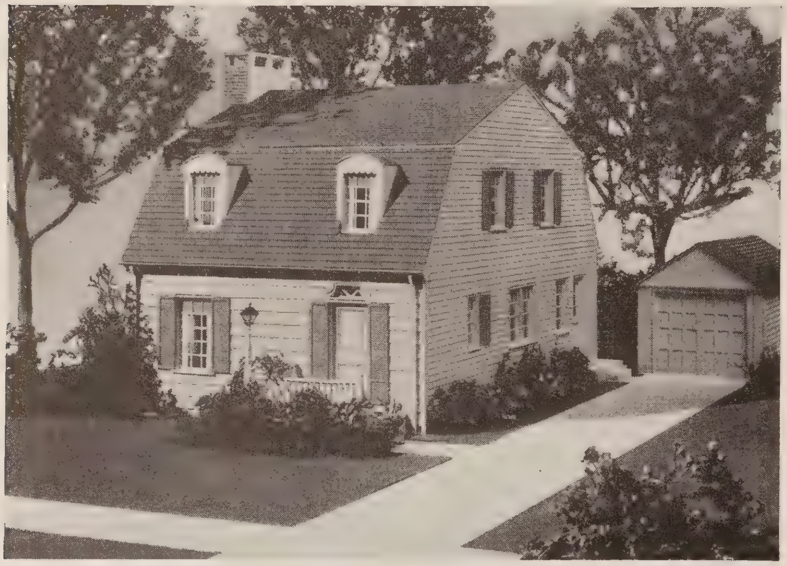
Better Homes & Gardens advises you, when you build this home—or any other Bildcost Home for that matter—to depend upon the supervision of a good architect. Rather than costing you additional money, it's ten to one he'll save you money and insure your getting, besides good design, sound and good construction.

● How much will it cost you to build this home in your own community? See introductory pages for information on the method of estimating it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering List of Materials and working drawings, appears on the last page.

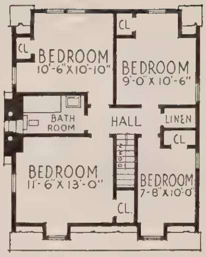


Here we see the louvered ventilators to the attic spaces in the gables of both house and garage, and the roof gracefully curving over the garage doors with decorative hinges

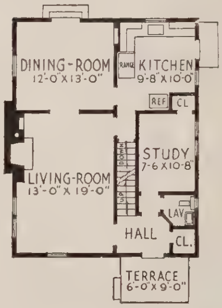
Room for Seven or More



All house—room for a family of seven in outside dimensions of 28½ by 40½ feet

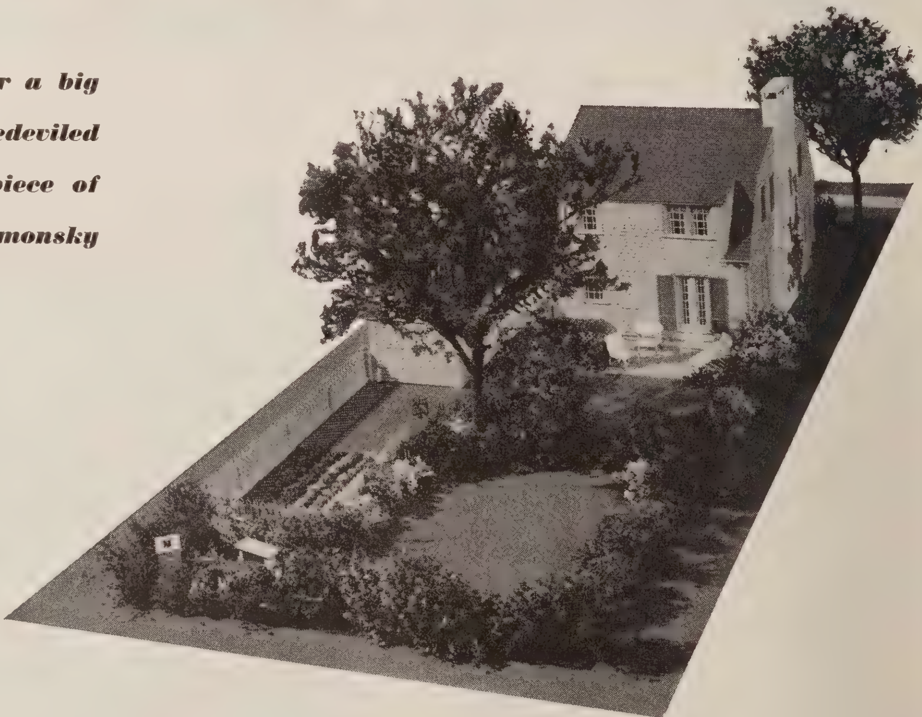


Second Floor



First Floor

A Bildcost Home tailored for a big family, a 40-foot lot, and a bedeviled city pocketbook! A masterpiece of ingenuity by Verna Cook Salomonsky



HERE'S a large-family, low-cost home with four upstairs bedrooms and a downstairs study which, with an adjacent lavatory, is readily convertible into a bedroom. And for a lot only 40 feet wide! Costs are reduced thru simple lines and by keeping the size to a story-and-a-half. Use of stock millwork and elimination of non-essentials have made possible the purchase of high-quality materials. And yet the home has character and individuality.

Tho compact, seven individuals can be housed and have ample closet space, and there's a commodious linen closet convenient to the four bedrooms. This is a doll's house to keep clean. There are no unnecessary halls, no dark corners or stair balusters to dust; the built-in kitchen breakfast table saves steps and the kitchen has direct access to the dining-room, living-room, and basement. The working countershelf running from the sink to the range provides space for meal preparation and makes for kitchen efficiency.

For the exterior, the front wall is faced with widely coursed, white-painted shingles; side and rear walls have narrow-exposure clapboards. Shutters are midnight green; the roof is a dark tone, whether of wood, slate, or composition shingles. All trim is white. The roof allows 6 feet 4 inches headroom front and rear. Gutters and leaders are copper.

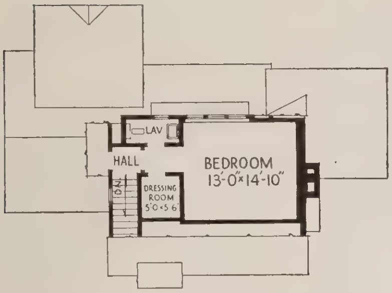
Because of the large number of persons involved, interior colors should be practical. The knotty-pine paneling covering the projecting chimney breast in the living-room and hugging the bookcase with its outline of naive curves strikes the keynote of the decorative scheme, providing a warmth against which a cool color could be charmingly used on the remaining walls and trim. In the dining-room above the wood dado strip, one might use a washable wallpaper if it were not of too delicate a coloring.

Two long basement rooms can be subdivided as desired; possibly laundry and store room on one side, and playroom and heating room on the other. In spite of the commodious plan, the house looks like a cottage on the outside.

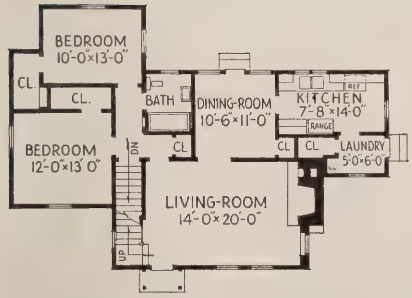
● How much will it cost to build this house in your community? See introductory pages for explanation of Bildcost Plan, and convenient coupon for ordering Lists of Materials and working drawings on last page.

Abrim With Personality

Designed by Architect Arthur F. Herberger, Los Angeles



Second Floor



First Floor

IF YOU were to ask Architect Herberger how he came to design this home, he'd probably say it was because he went on a motor trip thru the Deep South, and let the matter drop. But that wouldn't tell you the whole story.

You'd need to know that one of the toughest problems architects must lick today is to design low-cost homes that look like something. For when you cut costs, you're likely to end with just four walls and a roof—pretty trite and cheap-looking.

Knowing these things, you'll realize how tremendously impressed Herberger was when he drove thru the Deep South and saw the simplicity and beauty of the houses on the old plantations. They were crude, but as quiet and relaxed as a pig-tailed pickaninny sleeping in the sun. Herberger got excited. Why not cross these old quarters with a well-laundered Cape Cod cottage! The result would be a rustic New England cottage. It'd be inexpensive. It'd strike you with its personality.

SO HERE is the home. Devoid of all detail, its beauty depends entirely on low roof lines, pleasing mass, and a textural quality caused by lights and shadows on the white board-and-batten walls. Roof shingles laid irregularly soften the whole effect. Crowning accent is the huge whitewashed chimney of old brick, unevenly laid, with deeply raked joints. Heavy wood shutters of hewn boards add to its feeling of security.

From the 14- x 20-foot living-room in this compact plan you step into the dining-room and kitchen or into the little hall that separates the living areas from the bedrooms and bath. Off this hall is a stairway to the basement which houses the heater, fuel and storage rooms, and a rumpus room. For warm climates, there's an alternate plan by which the house is built without a basement and a small heater fitted into the laundry.

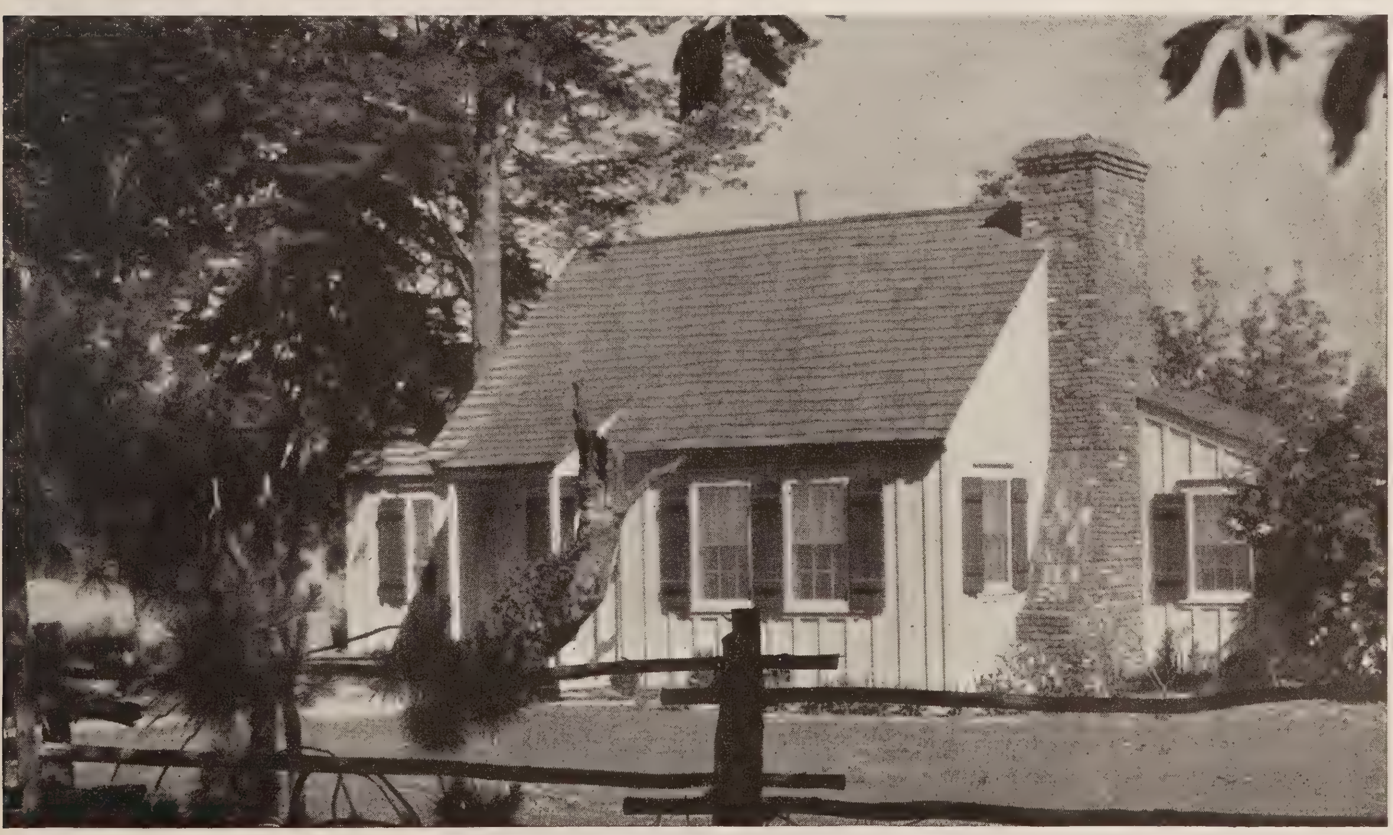
An exposed stairway at the left end of the living-room takes you to a quaint attic bedroom with a roomy dressing closet and lavatory. It's protected from summer heat by insulation and made light and airy by four dormer windows.

IN THE living-room you are drawn to an Early American fireplace built with an attractive oven feature into a wall of wide New England paneling. The outside wall of the dining-room is all glass with a door that leads to a garden or terrace. The modern, compact kitchen has space for a nook. Both bedrooms will accommodate double or twin beds, and have cross-ventilation.

Set the house down under big trees or give it an old-fashioned garden. You'll own a truly economical small home brimming with come-hither personality straight from pine forests and plantations.

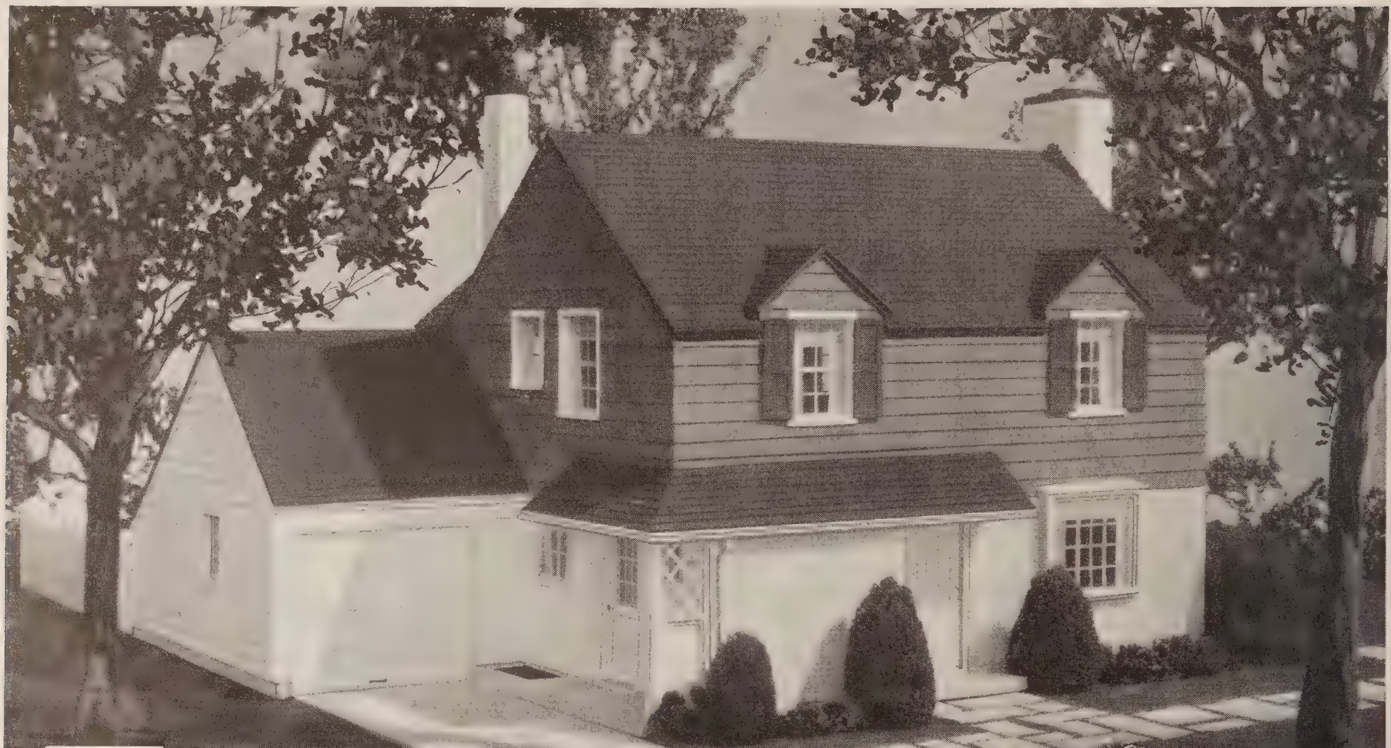
● How much will it cost to build this home in your own community? See introductory pages for information about method of estimating it, and for explanation of the Bildcost Plan. Coupon, for convenience in ordering Lists of Materials and working drawings, appears on the last page.

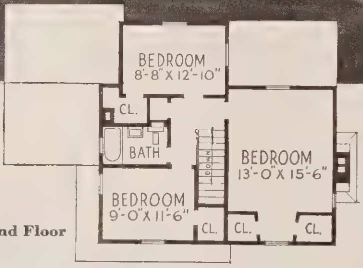
From the old plantation quarters of the hospitable Deep South comes the rustic beauty of this six-room home



Bildcost Gardened-Home Plan No. 904

Six Rooms of Honest American

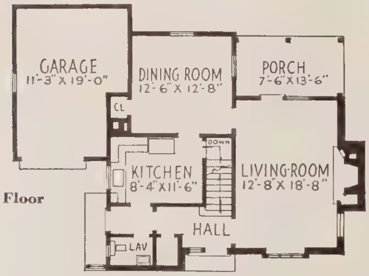




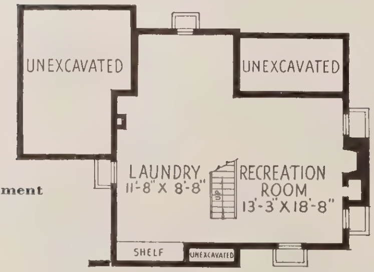
Second Floor

No blank Modern walls, no hot terraces or burning, flat roofs, but lots of comfortable living

This Bildcost Home by William C. Caton apes no "period" and doesn't pretend to be "the home of tomorrow." It's simply good to look at and live in



First Floor



Basement

AWAY with streamlined today and living the contemporary life—here's an honestly livable home.

A full-size dining-room gathers the whole family about the table for a get-together at mealtimes. The screened terrace-porch is close to the garden where Sunday breakfasts or suppers can be lounged thru in comfort. The full basement provides laundry, recreation, and heater rooms, and clean, convenient storage space. No new, raw, or nude appearance here—this old-fashioned home snuggles into the landscape.

Front and service doors enter a protecting hall where the coat closet is within easy reach. Across the hall is the telephone niche. The downstairs lavatory, tho isolated, is convenient to the living-room and the kitchen.

THERE'S lots of kitchen-counter and cabinet space along the left and dining-room walls. Refrigerator and service table are conveniently placed just inside the hall door, leaving breakfast-bar space.

Dining- and living-rooms look out to a garden, the 20-foot living-room having a cozy bay window on the front, too. There are built-in bookshelves on each side of the deep-set fireplace, with its built-in wood-box.

There's a wide choice for exterior finish. First-story masonry might be brick or stone painted white, or natural stone. Frame walls above may be shingles or rough-sawn clapboards of white or grayed-brown. Color may be added with shutters at the front door.

INTERIOR walls may be rough-troweled or smooth-finished and papered. Rough plaster would harmonize with English or Early American furnishings. Woodwork may be painted, or knotty pine. You may prefer enamel, stained honey, warm gray, dark brown, or white.

Single or two-car garage plans are available. Even tho you have just one car, the valuable extra space of the two-car garage can be had for only a third additional cost. It would provide storage, workbench, or gardenwork space, or serve other purposes.

Bildcost Gardened-Home Plan No. 906

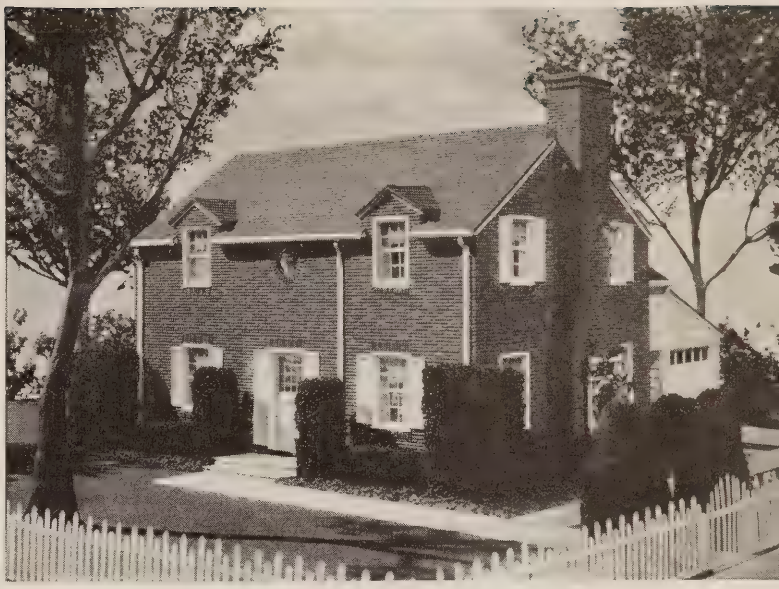
1 **Usually houses of this size and cost have three bedrooms. But this one, thru its unique design, boasts four**

2 **Tho seven rooms, it's only 33 feet wide, fits the typical 50-foot city lot**

3 **The garage, kitchen, and porch arrangement tailors it to a corner lot**

4 **Exterior combination of brick and wood bans monotony, cuts upkeep**

5 **Its Colonial styling, already 200 years old, will never become dated**



Here is quiet dignity and beauty, with spacious room for all the family

5 Problems Solved!

Designed by Architect Theodore Whitehead Davis

IN MUCH the same manner that engineers have designed new motor cars to provide more comfortable passenger space in their cars, Architect Theodore Whitehead Davis has redesigned the three-bedroom house to provide room for the fourth bedroom.

Each bedroom has cross-ventilation and an adequate closet. And closets and stairway are placed to deaden the sound between bedrooms, making them fine for study. And tho large enough for a family of seven or eight, this house can be set into a lot as narrow as 50 feet, with adequate space for a back-around drive. The side is as attractive as the front of the house, making it ideally suited to a corner lot.

Both brick and wood on the exterior make for variety of texture and color. Secondhand brick will soften the tone and add interest, without loss of strength. Its simple, pleasing proportions and modified Colonial styling will be as good in 1990 as they are today, as has been proved by their survival from the days of Shakespeare.

Color scheme of white trim; light blue sash, shutters, and front door; and gray-green shingles for the roof will be a delight to the eyes.

The rear porch provides a covered way from the garage either to the living-room or kitchen. It's a work porch or an outdoor living- or dining-room.

FOR economy, there is but one bathroom, but it's large enough for mother to conduct the morning ablutions of several children at one time. A dressing table is under the window. But there's also a downstairs lavatory, carefully isolated.

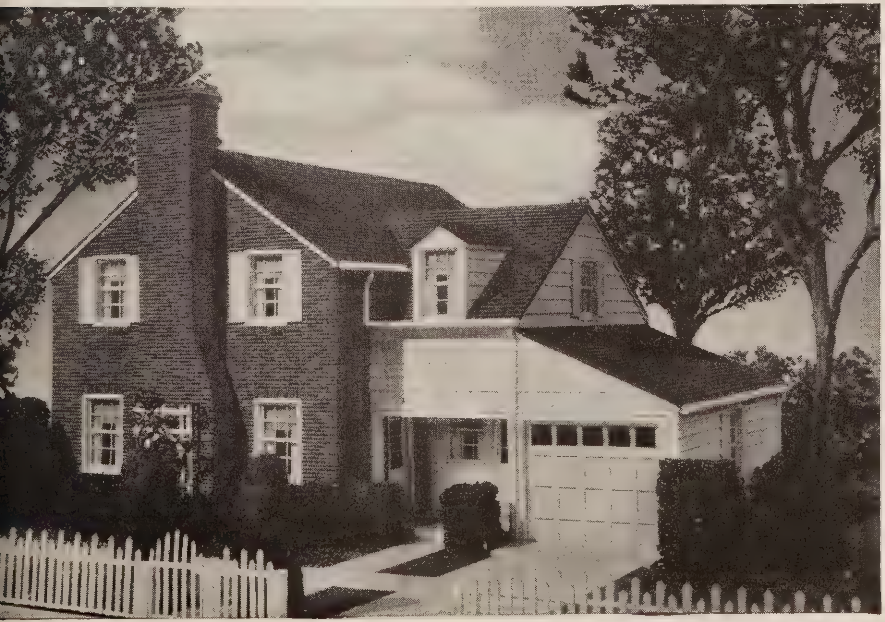
Guests or workers may use the basement stairway and rear hall without interference, and basement stairs are inclosed in wood partitions. On one side are the heater room and laundry; on the other, separated by a door, is a room the size of the living-room, with windows on two sides, suggesting a rumpus room.

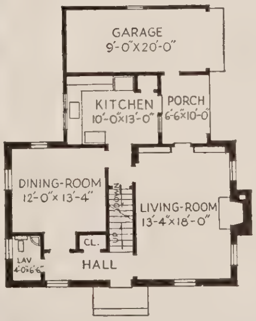
THERE'S table space in the kitchen, with its ideal U-shaped working unit, for quick meals and the convenient depositing of deliveries at the back door. There are cupboards above the counter shelf, modern and easily cleaned. There are drawers below, and a supply closet inside the back door.

Other pleasing details there are aplenty: The big living-room fireplace, and bookshelves all across one end of this room. Handrails on each side of the stairs for safety and to keep walls free from finger marks. Coat closet in the front hall with space for a mirror and table opposite. Twin linen closet in the upper hall with blanket drawers below and shelves behind double doors above. Shoe shelves fitted below the small round window in the owner's bedroom closet, and more shelves in this closet over the stairwell cut-off.

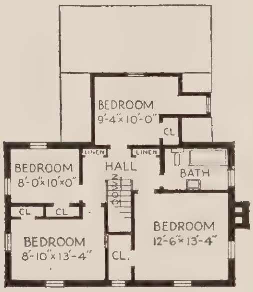
● How much will it cost to build this home in your community? See introductory pages for information about how to estimate it, and for an explanation of the Bildcost Plan.

Attractive from the side, the design is ideal for a corner lot



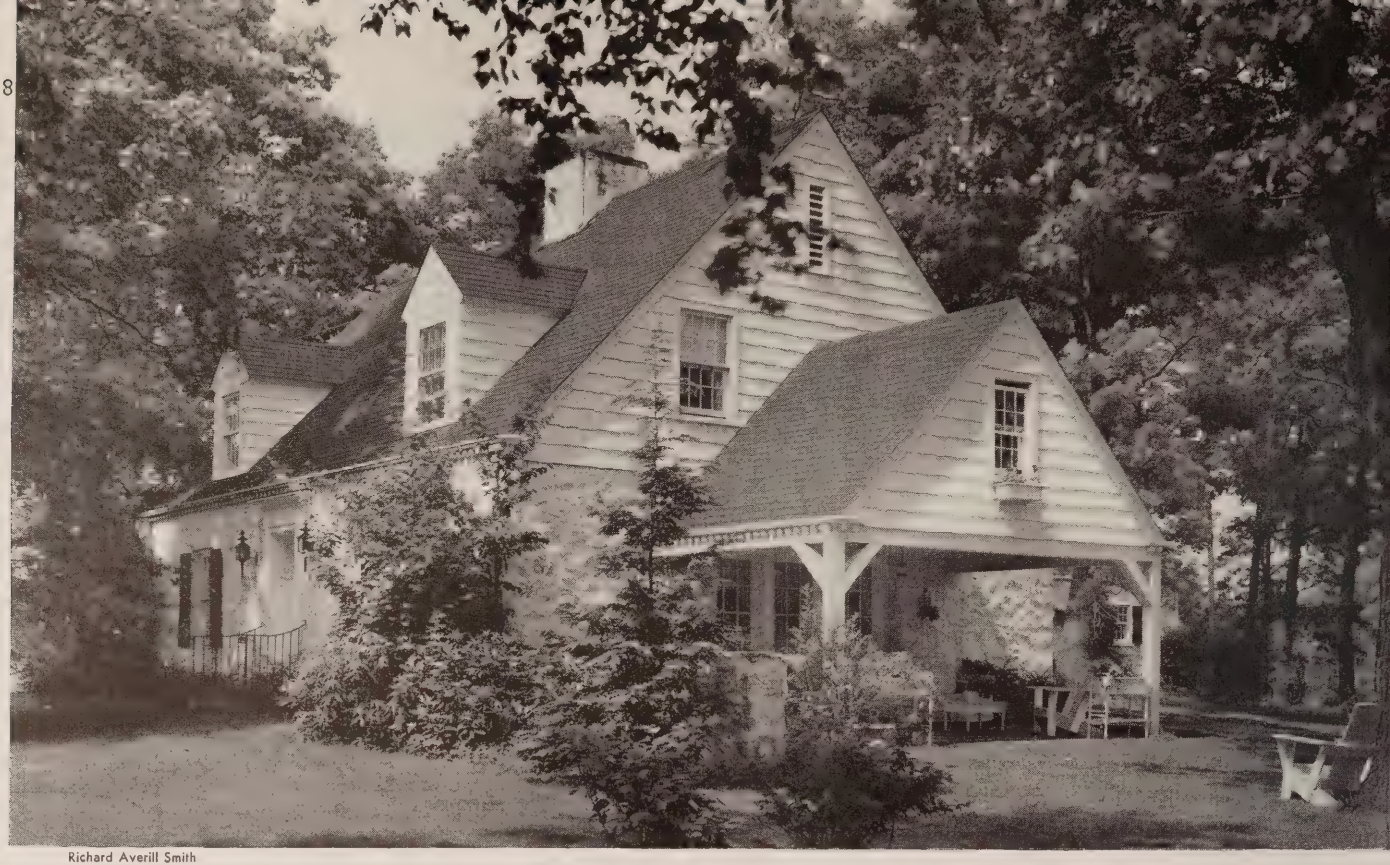


First Floor



Second Floor

Bildcost Gardened-Home Plan No. 907



Richard Averill Smith

Unusually roomy is this three-bedroom gardened home. A child's playroom is above the porch

Beauty in Stone

Designed by Architect Edward G. Wallace

IN NINE out of ten communities, building of stone is ordinarily a rich man's pleasure, so it's a virtue, indeed, that this home is designed to be built of any sturdy stone you can dig up locally. Texture and color don't matter, because the surface is roughly plastered over with whitewashed mortar—"parged." Properly designed stonework gives a distinction, a feeling and appearance of solidity that's peculiarly its own.

The house was orginally designed and built in Darien, Connecticut, for the Robert E. Fatherleys.

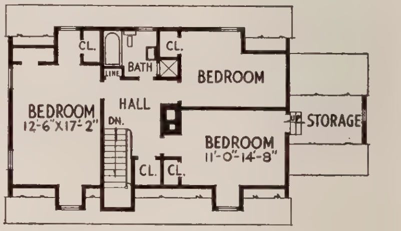
The front entrance is simple; has quaint iron railings and black carriage lanterns on each side of the door. There's the deep dentate moulding under the eaves, 24-inch-wide shingles staggered to soften gable ends, and a black-capped, fat Colonial chimney rising from the roof center.

INSIDE is the very definitely Colonial knotty-pine wainscoting of the 27-foot-long living-room and the dining-room. In the living-room, two long windows and a French door open onto the porch overlooking a valley. There's a wide, deep fireplace. There are two flagstone ovens in the fireplace, the one on the right a wood-box conveniently filled from the hall. The color scheme is provided by a green broadloom rug and soft tones of unstained pine wainscot. Paper is beige with pale green and brown motifs. Windows have green glazed-chintz draperies very soft in tone over ruffled white glass curtains. Fine grilles under each window conceal radiators. Floors are wide oak boards, waxed but not stained.

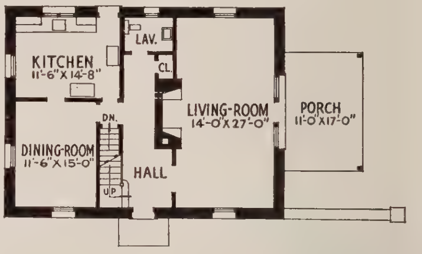
The dining-room has cream and brown Colonial paper, and corner cupboards are lined with red. There's red-brown in wall-covering, and dull red glazed-chintz draperies at the windows are bordered in white.

The kitchen, where the windows look out on broad lawns and provide cross-ventilation, has work units placed to provide space for a small table for quick meals.

There's a downstairs lavatory, and upstairs the bathroom provides both tub and shower facilities. The large bedroom has front and rear dormers and two side windows, with the door at the end of the room near the bathroom and closets leaving wide, unbroken wall space. There's a built-in dressing table over the radiator grille in the front dormer. Above the porch is a children's playroom. Sturdiness and size of the porch posts suggest hand-hewn timbers of earlier Colonial days, and wooden pegs hold them together. The detached garage follows out the design of the house, and is tied to it with a stone wall.



Second Floor



First Floor

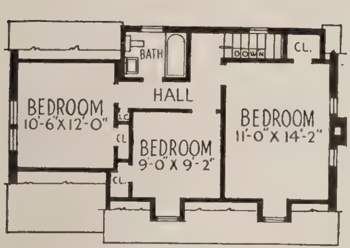
Modern, yet traditional, simple, and livable, home-builders over the country will delight in the sturdiness of this Beauty in Stone.

● How much will it cost you to build this house in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering List of Materials and drawings, will be found on the last page.

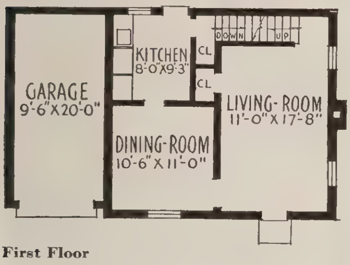
Bildcost Gardened-Home Plan No. 908

"Pot-of-Gold" House

Designed by Architect Robert Charles Martin



Second Floor



First Floor

Cape Cod charm

Designed for 50-foot lot

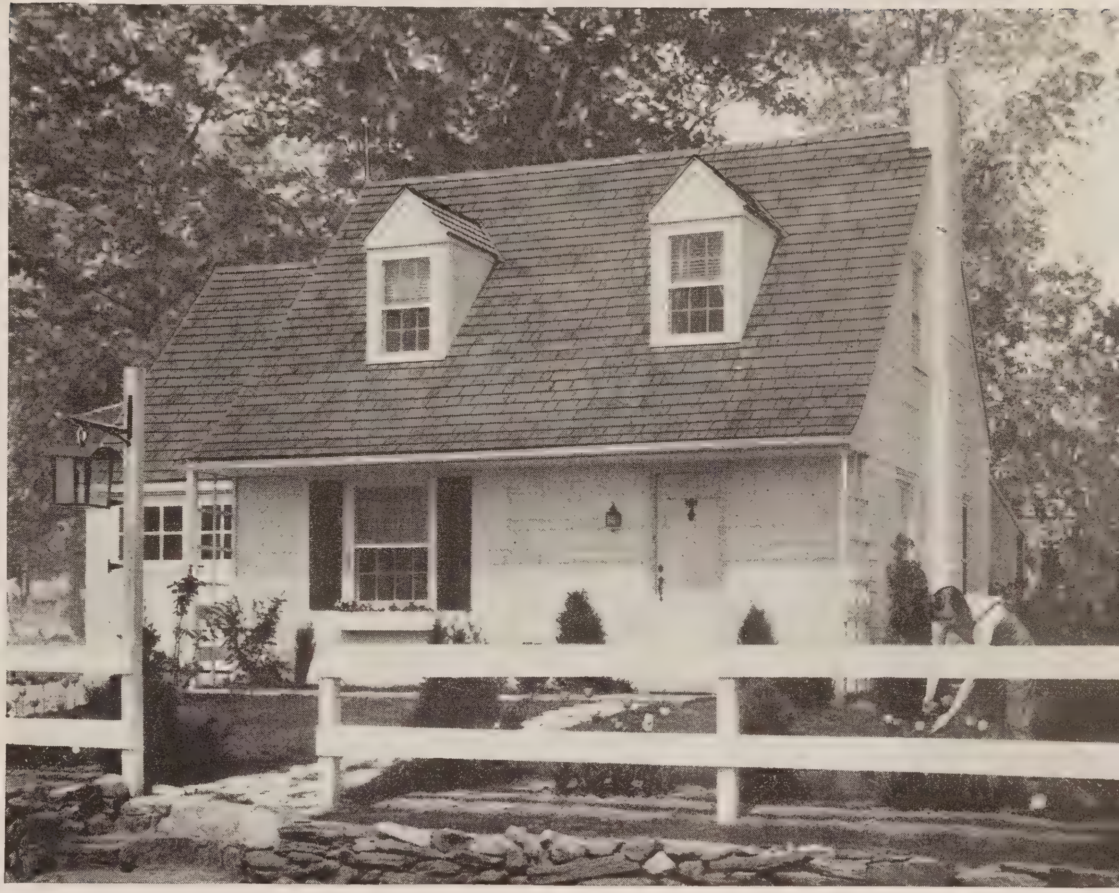
Firesafe construction

Three bedrooms

And a garage

A lot of house at low cost

William M. Rittase



Here is Cape Cod charm without one expensive embellishment and with family-size accommodations

THIS house isn't just a plan on paper, as you can see. It has been built and lived in, not just once, but many times over—and the costs have been astoundingly low each time. It should be able to maintain its batting average—for it's that kind of house.

For many months, *Better Homes & Gardens*' Architect-Editor John Normile scoured the country for just such a house as this. For one thing, it *had* to accommodate comfortably a six-member family. It must have room—not just for mere existence, but for an active family to stretch out and *live*. Then, it had to be a house that could be built by the head of a family who had never found difficulty in totaling his income tax at the end of the year.

This end-of-the-rainbow quest wound up in Philadelphia, where the "pot of gold" had been designed by a young architect, Robert Charles Martin.

He had designed this home to be constructed of concrete masonry, cement-painted, *practicably*, at low cost. The cement paint was scarcely dry on the model house when orders had been placed for 58 others just like it. Within a year's time, more than 200 were completed or in the building.

It was hardly fitting that such small-house excellence should benefit only one section of the country, so it became Bildcost Gardened Home No. 909.

THE key feature of the design, and one that sets it apart from the ordinary, is the stairway, as usual or unusual as that may seem. In its placing is more than a thought of convenience in reaching the second floor. Rising as it does from the rear of the living-room, it makes possible three proud bedrooms on the second floor—a double bedroom over the living-room, a smaller one over the dining-room, and yet another very comfortable sleeping quarters over the garage. Probably in no other way could the designer have so easily provided space for three such respectable bedrooms in this small a house.

But that is just one example of this home's architectural ingenuity. The living-room provides real *living* room. It's 11 by 21 feet. The dining-room is 11 feet square, and the kitchen, just 8 by 9 feet, is handily compact. The garage, with dimensions of 20-foot depth and 9-foot width, provides room for storage of storm sash, screens, and such.

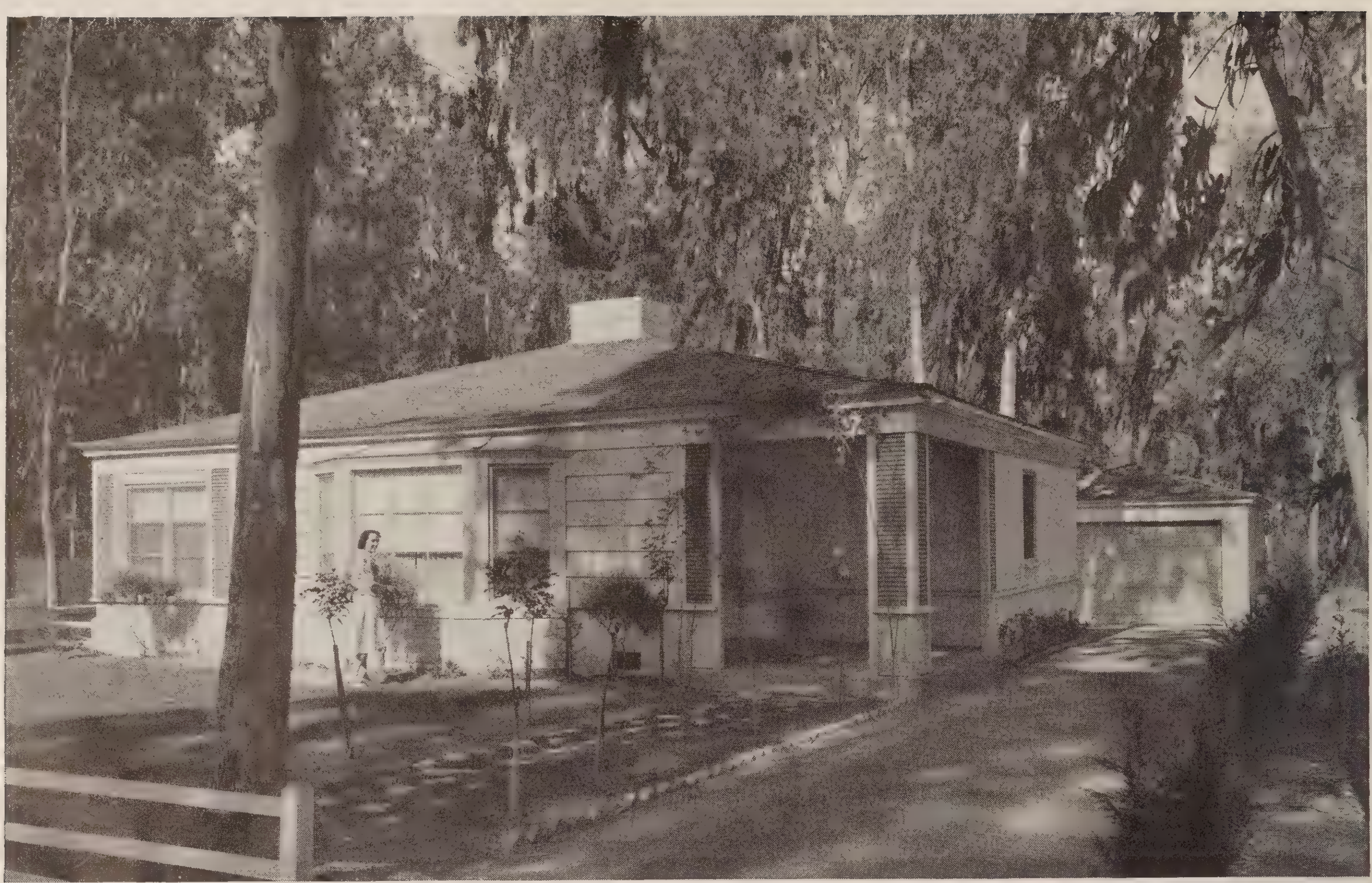
Exteriorally we have no box-like structure, but a cleverly designed little Cape Cod package with clever touches found usually in houses far above its cost class. The graceful curve of the projected eaves gives more than a beautiful finish to the roof lines—it shelters the entrance and makes possible an extra foot of space in the second-floor bedrooms. The charming lattice terminations at either corner and the delicate, perfectly scaled dormers distinguish this house from the commonplace.

The designer further enhanced the beauty of the exterior by specifying walls of variable-course *stock* sizes of concrete blocks, giving them, when covered with the white outer coat of cement paint, a pleasing interest. And when building the home, the architect suggests that you stain the shingles green and paint shutters terra cotta or blue.

(To make the home completely firesafe as well as durable and low in upkeep, you have only to use concrete-joist floors.)

If you're partial to Cape Cod charm, if you want a lot of house for just a little money, and if your family is growing, this is the home for you.

If you'd like to know how much it will cost you to build this house in your own community, see introductory pages for information about the method of estimating it.

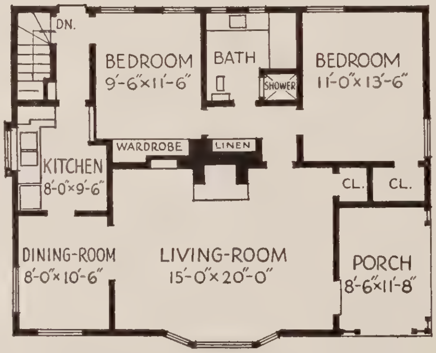


Mott Studios

Tho distinctly Californian in its low lines and classic beauty, this five-room Bildcost Gardened Home is compactly rectangular instead of spread out, which makes it an excellent plan for all parts of the country

Styled in California for All U. S.

Designed by Architect Leo F. Bachman



HERE'S the home for the young man tired of paying $45 a month rent for the inconveniences of "built in 1913," shoveling coal and ashes all winter, trotting up and down for an insufficient supply of hot water, and attempting to keep poorly engineered plumbing open.

With $750 or $1,000 on the line, you can have this small home for only $2 or $3 more per month than the rent on some outmoded place of existence, depending upon the taxes.

Designed for economical construction, it can be built without becoming a burden. Modern Californian in styling, it's rectangular instead of sprawling, and economically constructed anywhere. A noteworthy feature is the hip roof, a Sampson among roofs because it forms a natural arch from four directions instead of two, and at the same time eliminates the more costly triangular gables in the side walls.

The living-room is oversize and the low, beamed ceiling is finished in pure white. Beside the fireplace is a six-foot shelf bookcase, its lower shelves concealed behind doors. Bedrooms are ample for double or twin beds, and the bathroom is luxurious with a shower for quick clean-up activities, or a bathtub for a relaxing soak. At each side of the lavatory are windows and built-in dressing tables.

The kitchen is the sort one longs to have. Wide bay window over the sink lets in plenty of sunlight. There are cupboards on each side of the window and over the refrigerator, and tray space beneath and each side of the sink. The range on the opposite end has cupboard and drawers convenient to it, too.

The basement can be excavated for heater room, storage, laundry or rumpus room, or just for heater space alone.

THE exterior is of brick, plaster, and wood siding painted cream. There's beauty in the apple-green shutters on the dining-room windows, repeated on the open porch; in the whopper bay window between the two; and in the chimney, squatting flat and fat on the peak of the roof.

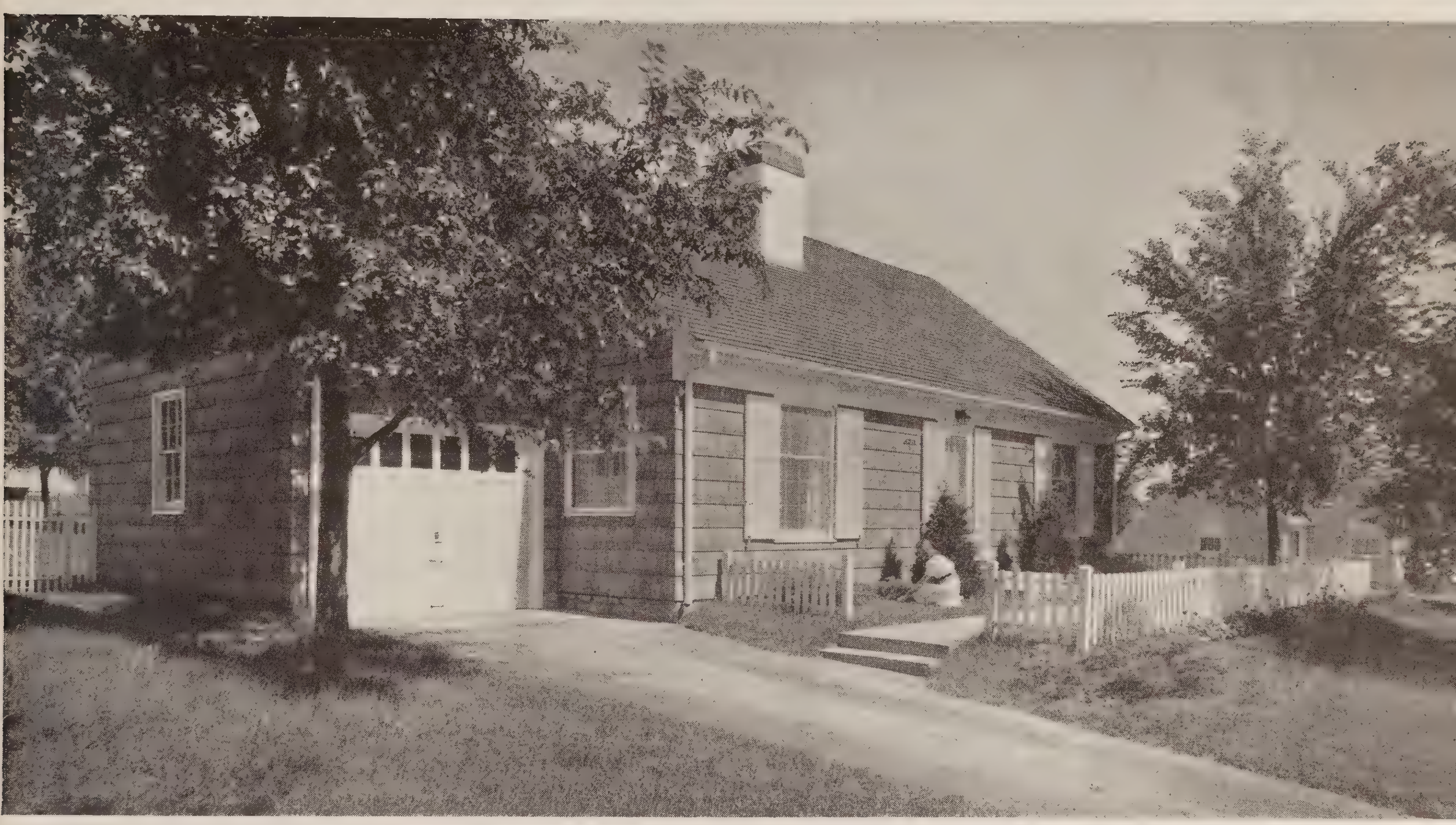
Here's the home California and Leo Bachman give you, the home that can readily bring you out of the rent-spending class. It has quality, style, mechanical conveniences essential to proud, comfortable living—and provides them all for little more than the $45 a month that burdens you with the inconveniences of "built in 1913."

- How much will it cost you to build this home in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering Lists of Materials, literature, and working drawings, will be found on the last page of this book.

Bildcost Gardened-Home Plan No. 910

4-Bedroom Cape Cod

Designed by Architect Edward W. Tanner



Under this snug Cape Cod roof are four bedrooms, two bathrooms, 10 closets—plus a 14-foot porch, and a garage

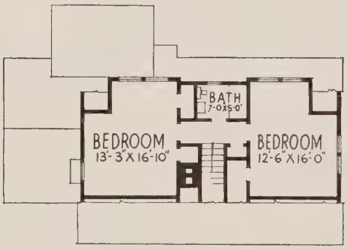
THIS true Cape Cod house is impressive for its economy of construction, for its utilization of available space, with seven sizable rooms, ten closets, two bathrooms, entry hall, and garage. Time-tested product of shrewd sea captains with no money to waste, Cape Cod is one of the best small-home designs, and is immensely popular, if we may rely upon the surveys.

But let's consider this particular house. It has a tidy, off-white trim, a dusky roof accented by a chimney capping of black, and gray, weathered shingle walls—all Cape Cod, truly. Its two over-size front windows balance each other, presenting the main door as the central point of interest. Small panes of glass in the door give charm to its appearance, and light the front hall. Just inside the door is a coat closet. Front windows are larger than their 15-pane predecessors were, but are keyed with the low eaves and the breadth of the house to create a cozy air and admit welcome light to the interior.

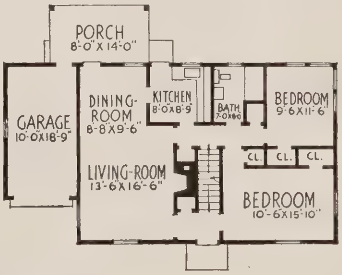
The floor plan would be hard to improve. Plumbing economy, for example, is achieved by grouping kitchen and downstairs and upstairs baths closely. Tho tiny, the hall permits ready access to all the rooms. Elimination of the partition between dining space and living-room gives an appearance of spaciousness, and bookshelves by the fireplace add a cozy touch. Screened porch adjacent to the kitchen provides for outdoor dining, forms a covered passage to the garage, and opens on the garden. Above are two bedrooms and a bath easily accessible to both. Each of the bedrooms will accommodate twin beds.

Here we have a home impressive for its simplicity, its frugality, its quaint charm, and, most impressive of all, its luxurious number of rooms in a house so small.

- How much will it cost you to build this home in your own community? See introductory pages for information about the method of estimating it, and for an explanation of the Bildcost Plan. A coupon, for your convenience in ordering Lists of Materials and working drawings, appears on the last page.

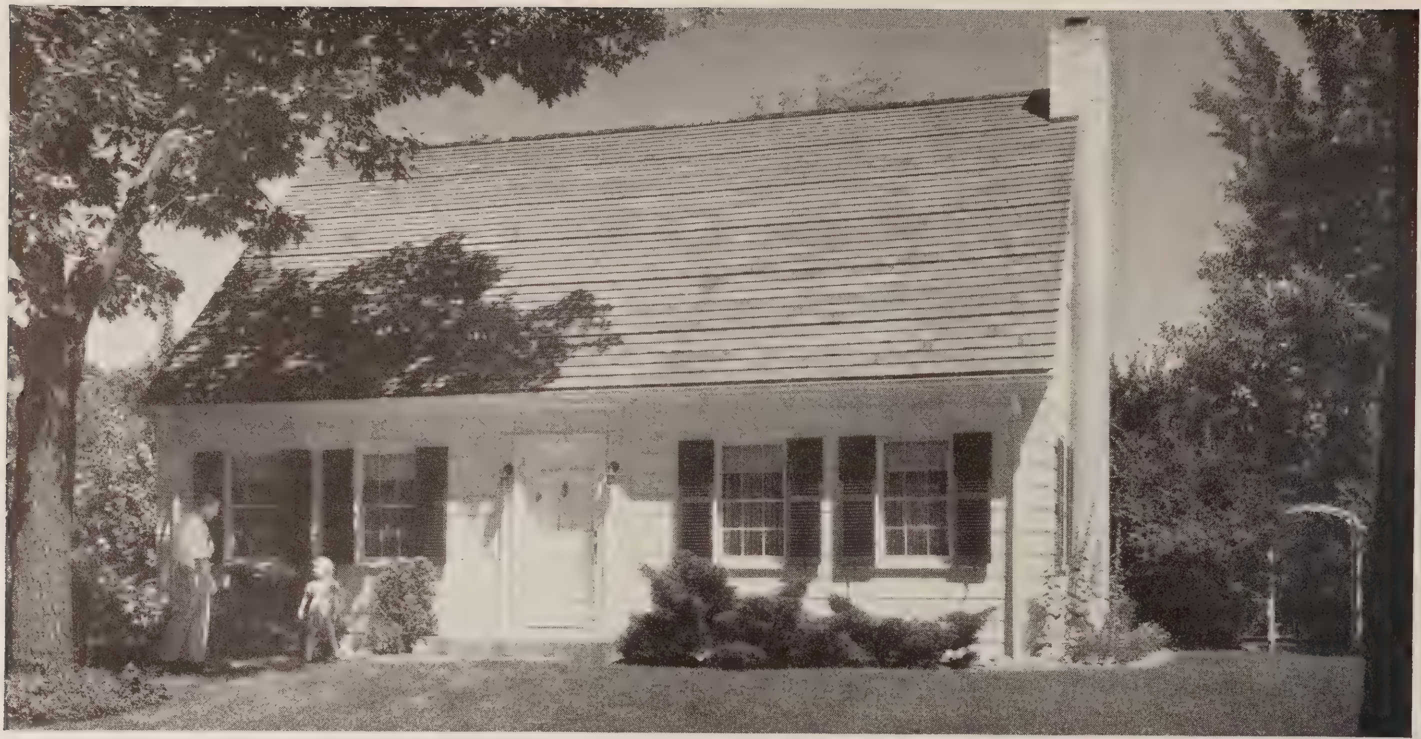


Second Floor



First Floor

Bildcost Gardened-Home Plan No. 911



Neat, simple, and larger than it looks is this Bildcost Cape Cod cottage. It has six good-size rooms, a bath, and a powder room

Six Rooms and Compact

Designed by Architect W. E. Durbahn

IN THIS Bildcost Gardened Home are six rooms plus a powder room and a screened porch, done in America's best-liked style—Cape Cod architecture. Neat, forthright, clear cut, snug, it can be built on a 50-foot lot, and permit room for a driveway, tho a wide lot will give a better setting. Monotony in the large roof area is prevented by varying the exposure of shingles from seven inches at the bottom to three at the top, and the doubling of every seventh course.

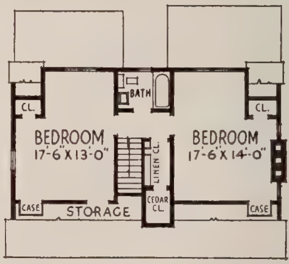
Inside, from the central hall, archways lead into the dining-room and the long living-room. The living-room—with its fireplace, its built-in bookcases flanking the French doors at the garden end, and its windows and doors on three sides to send the slightest summer breeze rollicking thru—is delightful for entertaining and living.

A HALL separates dining-room from living-room. In the kitchen are cupboards on each side of the sink, above and below. The range is placed by the dining-room door, and the refrigerator near the rear door, with room left for a breakfast table. Between kitchen and living-room is a multiple-use room—a study, bedroom, or den, or a room for an aged person unable to climb stairs.

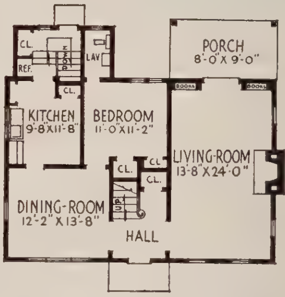
In each of the cabinets in all bedrooms is a drop-leaf writing-desk, with pigeonholes and drawers to give son or daughter or even father a quiet study room. The hallway closet has shelves from floor to ceiling, and a clothes chute. Dead storage of winter or summer clothes is accommodated in the cedar closet adjacent to the linen closet.

In the basement is a rumpus room with its own lavatory and fireplace. Compactness and good insulation reduce heating costs in an Illinois climate to an average of slightly over $50 a year; and its owner, Mr. Arthur Fjerre, of Highland Park, asserts that it's cool in summer.

- How much will it cost to build this home in your own community? See explanation of Bildcost Plan, and send for List of Materials. Please use the coupon on last page.



Second Floor



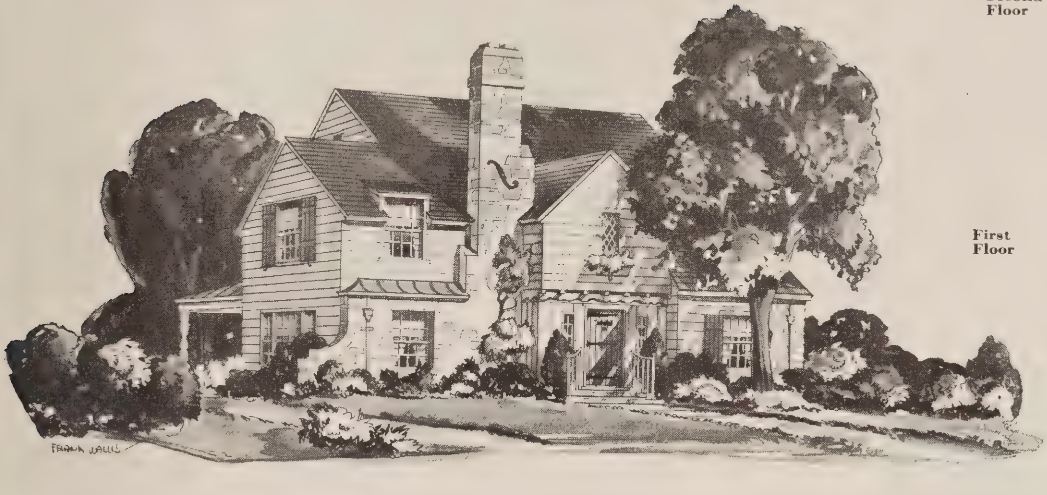
First Floor

Here we see the secret of how so much room has been provided in a home of such modest appearance—a continuous dormer, which converts into two bedrooms what would otherwise be wasted space. Our plan also provides a screened porch instead of the terrace outside the French doors opening from the big living-room

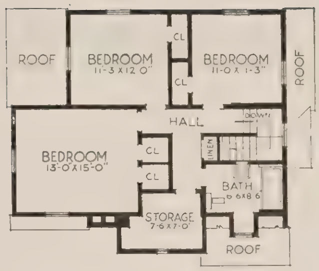
Bildcost Gardened-Home Plan No. 912

A Man's Home

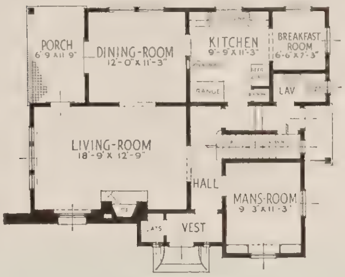
Designed by Willard B. Smith, Jr., Architect



Second Floor



First Floor



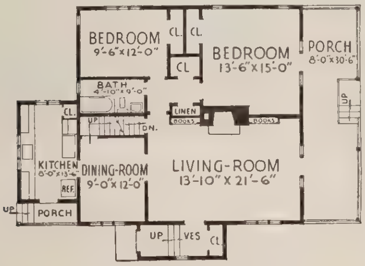
Bildcost Gardened-Home Plan No. 201

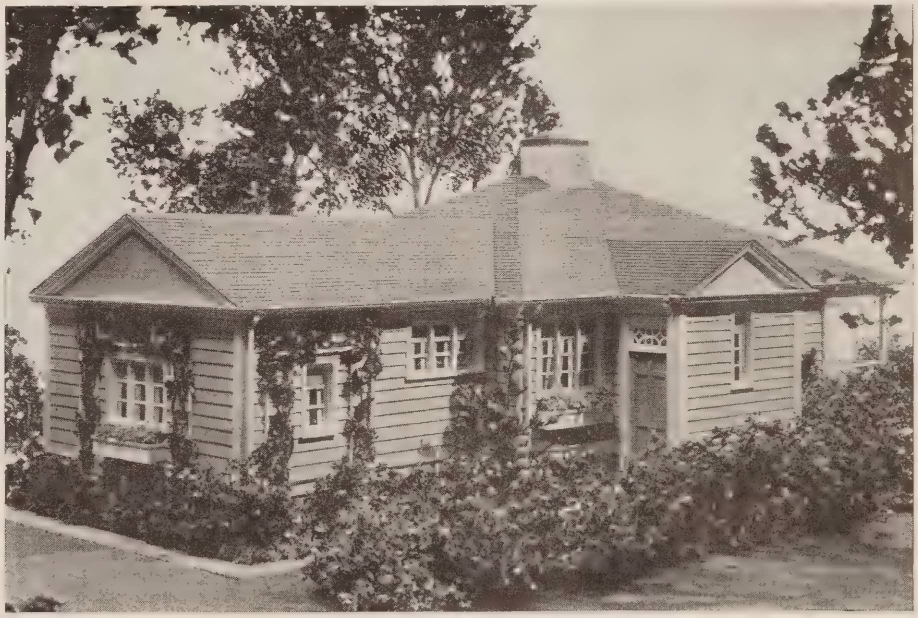
MAN'S desires have been taken to heart in designing this delightful home to include a pine-paneled room that he can call his own. It has two large bookcases, one at each side of the front window, which provide a place for his most prized books and papers. It's a room of his own, where he can work, read, study, or smoke to his heart's content. But the woman's kitchen has been well and completely equipped; the cozy breakfast room is bright and cheerful. The living-room and dining-room are large and well lighted, and both open onto a large porch. The second floor provides two large bedrooms and the owner's has one completely unobstructed wall—an ideal place for twin beds. The bath, tho small, is very conveniently arranged. This home can be built on a 50-foot interior lot with room for a driveway.

- How much will it cost to build this home in your community? See explanation of Bildcost Plan, and send for List of Materials, price 6c. A convenient coupon is on last page.

It Takes No Heap o' Livin'

Designed by Harvey Stevenson and Eastman Studds, Architects





MANY people like houses with exposed foundations, so Harvey Stevenson and Eastman Studds have designed this home especially for them. It solves the problem of building on uneven lots. Building a home in this way allows cellar windows to clear the grade for a light and pleasant basement. Adapted from the older Mississippi Delta homes, it has a flat hipped roof with projecting eaves, and a veranda.

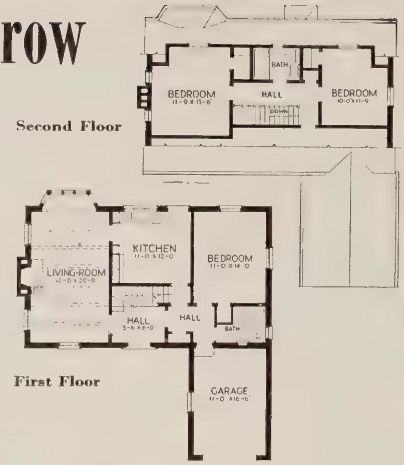
The hall is brief, and closets are plentiful. You'll like the idea of a vestibule to protect you from the elements, and the long living-room with its bookcase-flanked fireplace. And the dining-room, no larger than necessary, is given a feeling of spaciousness by the living-room opening. You have a bright, well-arranged kitchen with long counter and cabinet space. Alternate plans are available—one with basement garage, the other with garage above ground. The basement-garage plan is particularly adapted to a lot rising from the street. The exterior might be stained a soft gray and the trim and flush boarding painted white.

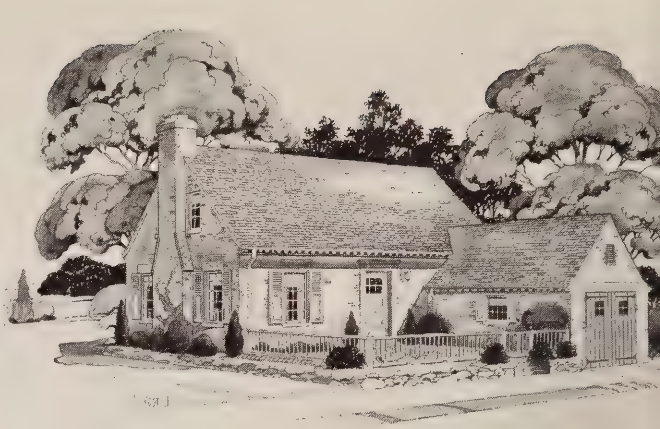
- How much will it cost to build this home in your own community? See explanation of Bildcost Plan, and send for List of Materials, price 6c. Convenient coupon appears on last page.

Bildcost Gardened-Home Plan No. 905

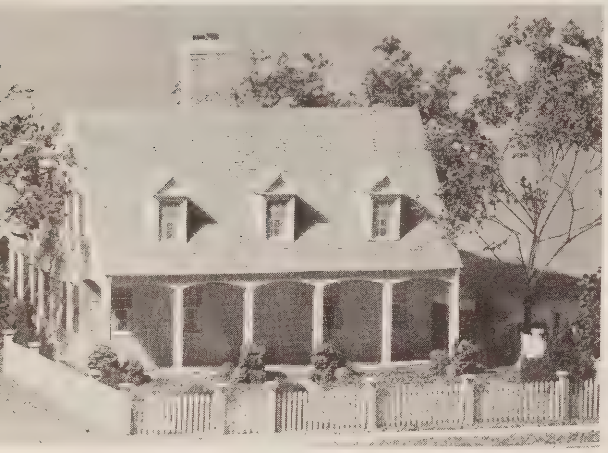
Designed to Grow

THIS 5-ROOM home was designed by Architect Elliott Lea. The first floor forms a complete living unit, and expansion is provided for in the second floor, which can be finished at some later date, if it's desired to hold original costs to a minimum. Yet, despite this economy, it has definite charm. Additional pictures and complete description of the home will be found in the *List of Materials*. See explanation of the Bildcost Plan on introductory pages, and convenient coupon on last page.



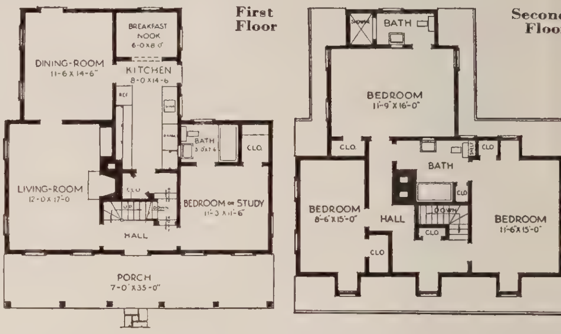


Bildcost Gardened-Home Plan No. 209



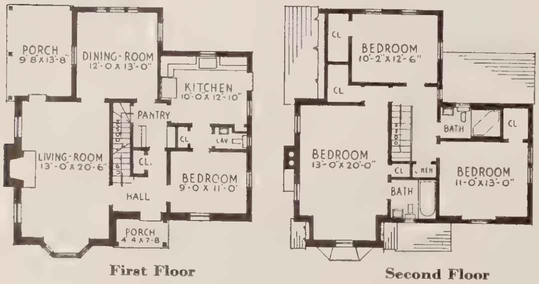
Old-Fashioned But New

THIS HOME, available in three- or four-bedroom size, was designed by Architect Robert Carr. A smaller plan provides a dining-alcove bay window in back of the living-room, and no breakfast nook in the kitchen, as shown in the larger plan pictured here. Additional pictures and description will be found in the *List of Materials* booklet.



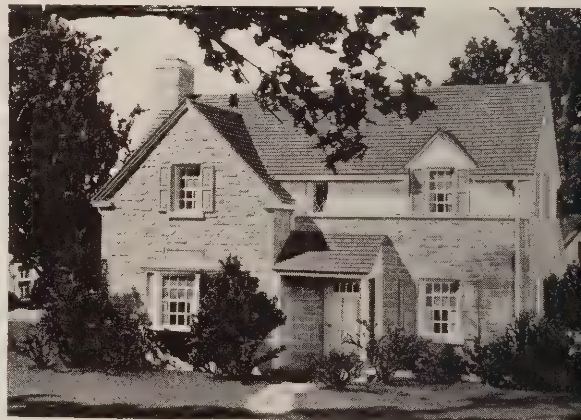
Bildcost Gardened-Home Plan No. 508

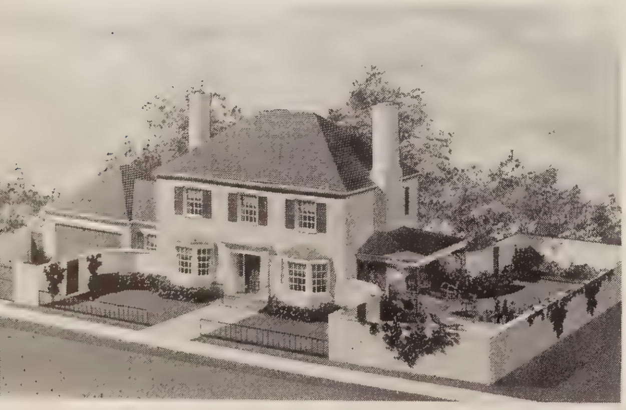
Three Bedrooms Plus



Bildcost Gardened-Home Plan No. 704

ARCHITECTS GEORGE B. Hall and Reynold E. Paufve designed this attractive home in the Pennsylvania tradition, with inexpensive yet effective details. It has three bedrooms, with a fourth available on the first floor if needed. Additional pictures and complete description of the home will be found in *List of Materials*. See explanation of the Bildcost Plan on introductory pages.

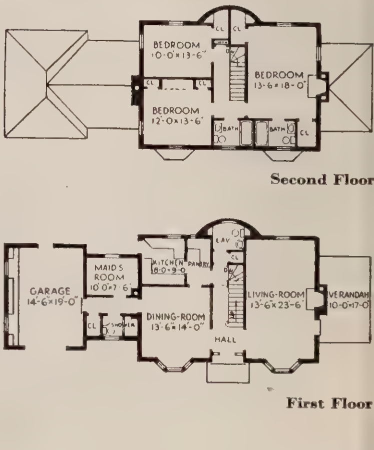


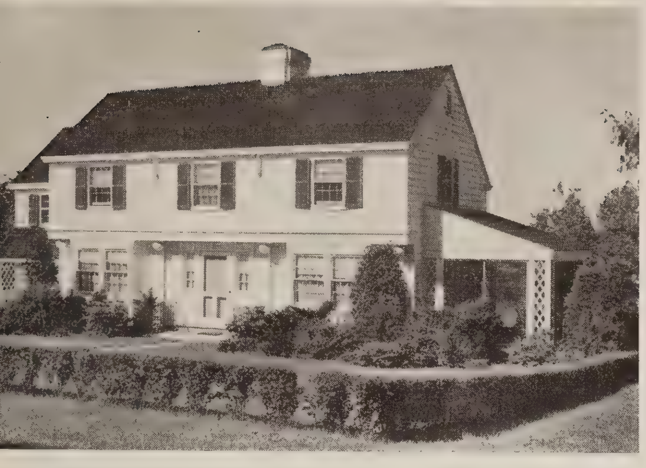


Four-Square

OUT OF the simple plan of this home, designed by Architect Robert B. Carr, grows an exterior of unaffected nature, regularity of mass, straightness of line, and moderateness of embellishment with restrained detail; and the walled areas of the garden tie its different units into a delightful whole. Additional pictures and complete description will be found in *List of Materials* booklet. See explanation of the Bildcost Plan. Also see coupon for your convenience on the last page.

Bildcost Gardened-Home Plan No. 707



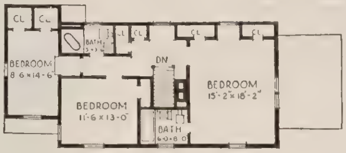


A New England Home

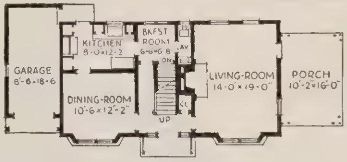
THIS NEW ENGLAND Colonial was designed by Architects Randolph Evans and Albert E. Olson. The exterior may be finished in white-painted shingles, clapboard, or stone, with clapboard or shingles above. The typical hall has living- and bedrooms opening from it. Additional pictures and complete description of the home appear in the *List of Materials* booklet.

Bildcost Gardened-Home Plan No. 710

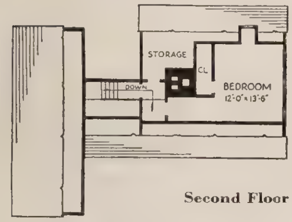
Second Floor



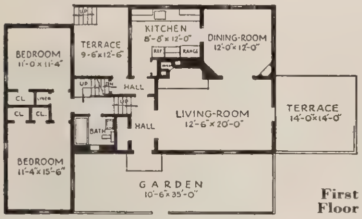
First Floor



Genuine Cape Cod



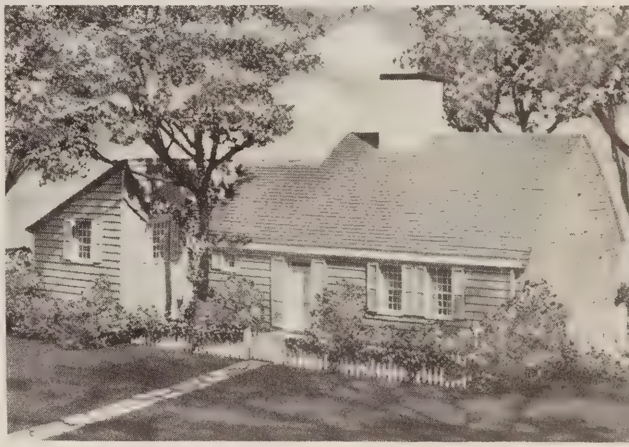
Second Floor

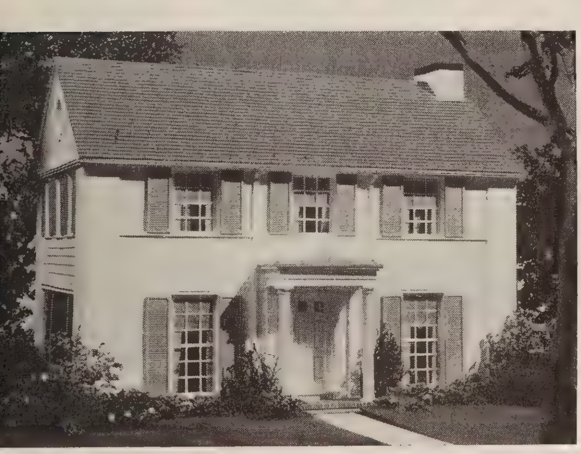


First Floor

BOWED ROOF-RAFTERS create authenticity for this Cape Cod designed by Royal Barry Wills, of Boston, and the flat shed roof offers a contrast. The long living-room welcomes guests with a warm fireplace, while a high board fence closes the terrace from the street. There's easy access to the garage from the inside or outside. Additional pictures and complete description of the home will be found in *List of Materials* booklet. See explanation of Bildcost Plan on introductory pages, and convenient coupon for ordering on last page.

Bildcost Gardened-Home Plan No. 801

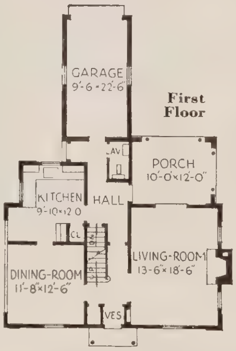




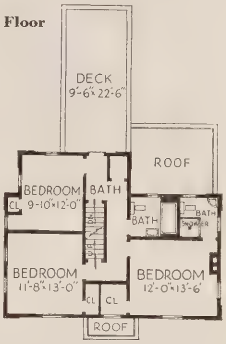
Modern Turns Classic

THIS GRECIAN-STYLE home was designed by Architect James F. Schindler, of Syracuse, New York; and the side wall of structural glass blocks lets light into the dining-room and breakfast nook. Attached garage is entered directly from the house. How much will it cost to build this home in your own community? See explanation of Bildcost Plan on introductory pages. Additional pictures and complete description of the home will be found in the *List of Materials* booklet; coupon on last page.

First Floor



Second Floor

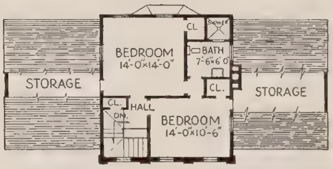


Bildcost Gardened-Home Plan No. 803

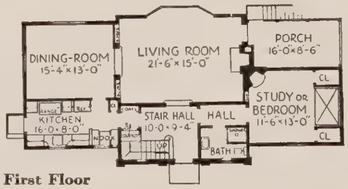
Three Wings in Harmony

BEST ABOUT THIS DESIGN by Architect Stratton O. Hammon, of Louisville, Kentucky, is the study-guest room with fireplace, built-in bed, bookcases, and double closets. Additional pictures and complete description of this out-of-the-ordinary home appear in *List of Materials* booklet; coupon on last page.

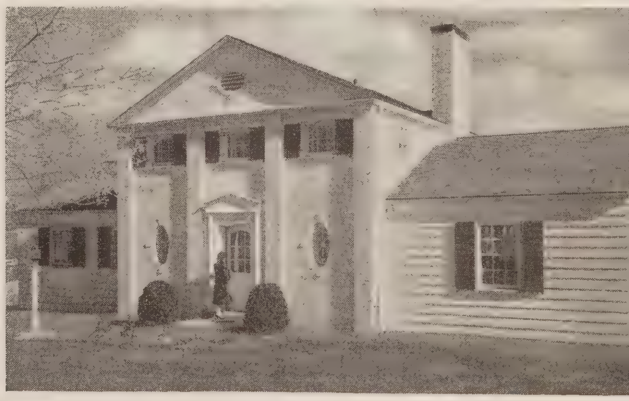
Bildcost Gardened-Home Plan No. 804

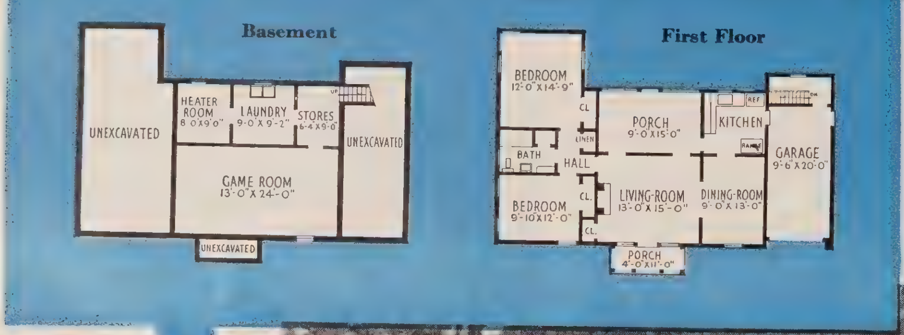


Second Floor



First Floor





Twins Under

Photographs by Merchants Photo Service

The two homes on this page were built from Bildcost Gardened-Home Plan No. 1001A. The only difference in the two is in the exterior treatment. Our Bildcost Plan shows the construction of both, so that you can take your choice of either. They were designed by Architects Talbot Wilson and Irwin Morris

Long, ground-hugging lines and numerous big windows are reminiscent of the Southwest's old-time ranchhouse

FOUR from two leaves four. That's not Wizard of Oz arithmetic. Only what has been done with the two sleek Bildcost Gardened-Home Plans shown here. Both homes on the left-hand page are from the same plan, 1001A; the only difference between them is the exterior treatment. And both on the right-hand page are from a similar, but slightly smaller, plan.

Three young Houston architects designed these homes for you who want beauty, convenience, and comfort at low cost. *Better Homes & Gardens* added the designs to its Bildcost Series because of the outstanding way they met these wants.

Personally, we're plumb enthusiastic about them. To us they're well-nigh perfect for the small family that wants to live both wisely and well.

Their simple, ground-hugging lines and good proportions are reminiscent of the generous ranchhouses we still see on our Southwest ranges. What we marvel at most, tho, is the way each finds so much room and convenience in a home of its price class.

Let's see why.

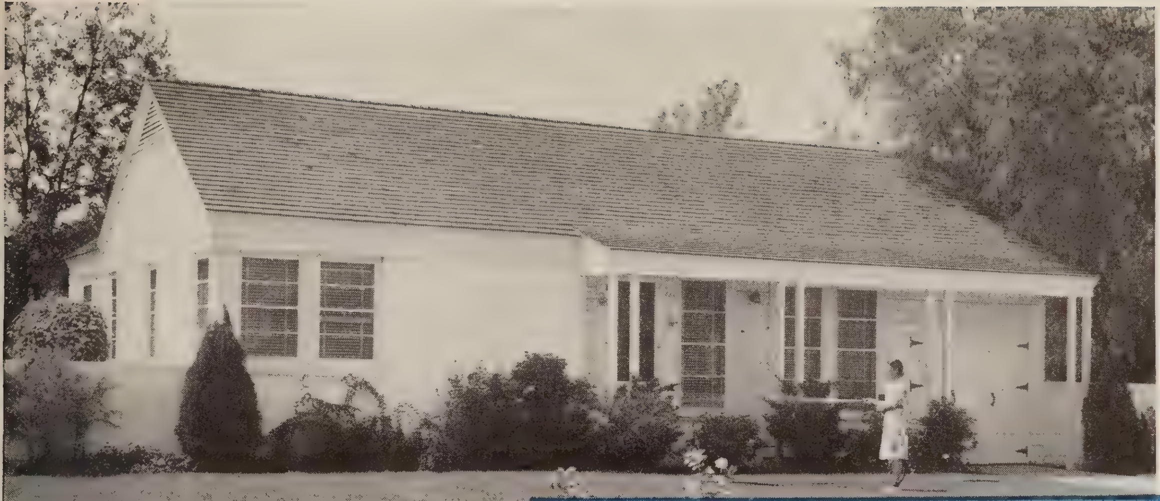
See how the kitchen forms a hub for the dining- and living-rooms and porch to turn on. And how the dining-room, tho a distinct unit in itself and not simply one end of the living-room, is only slightly separated from the living-room. When the family is alone, meals, reading, and living revolve in a time- and step-saving circle. When you're having a party the living- and dining-rooms and porch can be thrown together, with "party-food" preparation only a step away.

Things like this justify our lauding these houses as unusually comfortable and handy homes to live in.

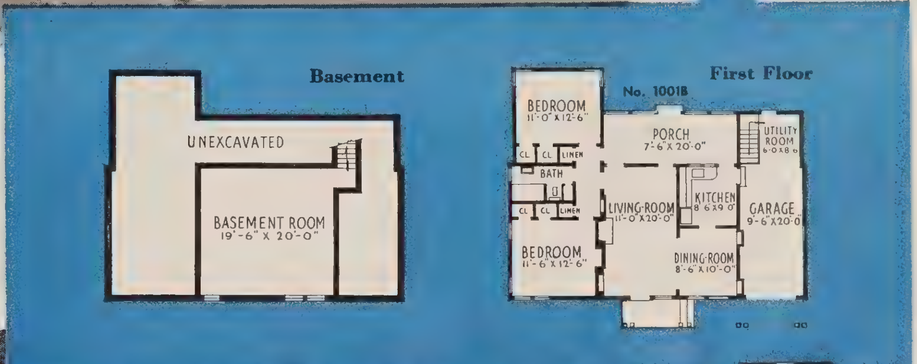
And there are other things, too. Our days begin with breakfast, going to work, getting the children off to school, and marketing. Bringing the garage and utility room next to the kitchen saves dozens of steps for you. Think, too, of how much rain and snow *won't* go down your neck while you're going from house to garage. And with the garage out of the way, there ought to be enough room in the backyard, too, for that badminton court or those fruit trees you want.

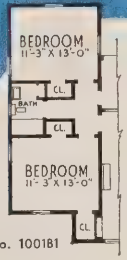
See how convenient the porch is to the living-room and kitchen for summertime lounging and dining, and how it ties together the house and garden. And see how the design of each major room provides cross-ventilation without sacrificing any of

Bildcost Gardened-Home Plan No. 1001A

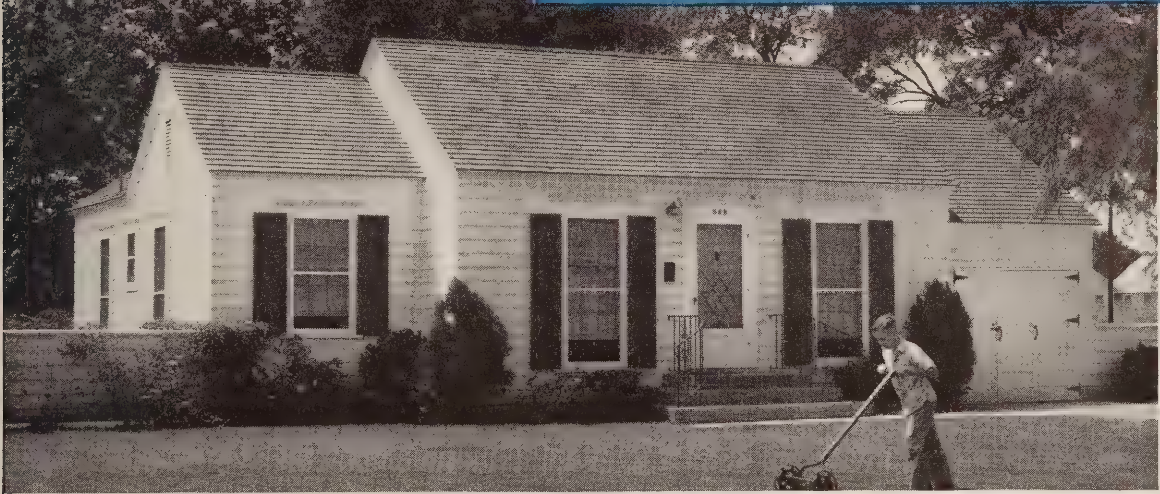


the Skin





Only difference in the layout of these two houses (Bildcost 1001B, above; 1001B1, left) is shown by comparison of the plan and the partial plan above. Partial plan shows the setback arrangement of 1001B1



Both Bildcost 1001B1, directly above, and 1001B, top of page, were designed by Architect Frank C. Dill

the wall space for furniture and fixtures.

These homes can be built either with or without a basement; the plans show construction for both, and you take your choice. If you omit the basement, the utility rooms are planned to hold a gas or oil heating plant, a water softener, a water heater, and three laundry tubs. If you include it, the basement stairs go from the utility room down, which makes the basement easily accessible from the outdoors. In northern areas that get extremely cold, you'll want the basement because it's easier to keep a house comfortable with the heating plant below the main floor.

Tho shown in the plans as dummies, the fireplaces can be built to burn wood and coal by carrying the chimneys up thru the center of the roof ridge.

Please keep in mind that if you want the setback arrangement for the house on this page, you should order Bildcost No. 1001B1, which is merely a variation of No. 1001B.

Garden Oaks, heavily wooded 400-acre subdivision just outside the northwest boundary of Houston, Texas, in which these four homes were built, is as perfect a setting for small homes as he's ever seen, says V. P. Ringer, who wrote the story about these houses in *Better Homes & Gardens*.

Opened only two and a half years ago, it's now studded with 400 new homes—a feather in the cap of long-range planning and an example to operative builders. No home can be built there until plans and specifications have been approved by the Garden Oaks Corporation.

Layout of the entire addition, featuring gracefully curving streets and the latest thoughts in subdivision development, was planned by Hare and Hare, nationally known subdivision planners. All lots front at least 75 feet on concrete-paved streets and have an average depth of 175 feet.

A five-acre tract within the addition has been completely equipped as a park and playground, complete with shelter-house, tennis courts, a softball field, and playground equipment—all floodlighted for night play when desired. Another tract of 10 acres has been set aside for a school to be built when needed. Permanent maintenance of parkways and esplanades has been provided for with a fund created by adding 40 cents to the sale price of each front foot of lot.

All told, more than half a million dollars have been spent for improvements and planting in the subdivision, exclusive of land cost.

Yet in this completely equipped, protected, and forward-looking development, the average sale price per lot, with paving and all-over improvements included, is slightly under $800. It's no wonder that Garden Oaks holds more than $1,500,000 worth of homes already

Built From Bildcost

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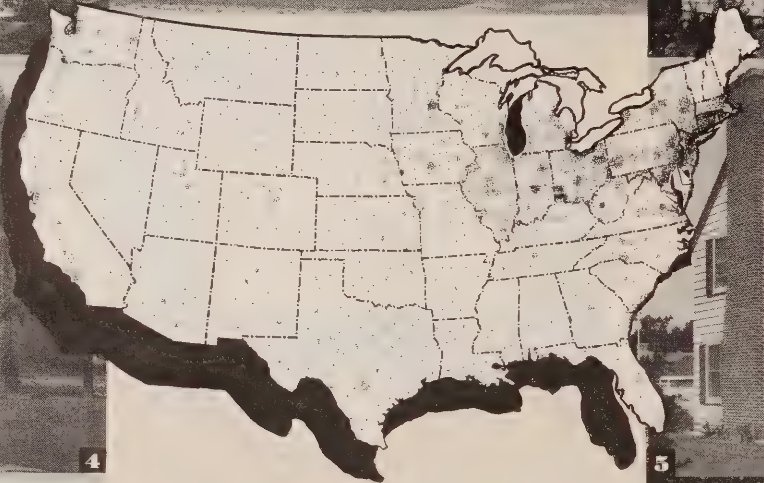

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10

Bildcost Houses a Nation!

ON THIS PAGE are pictured a few of the thousands of homes that have been built from *Better Homes & Gardens* Bildcost Plans. The map shows where the plans have gone—into every state of the Union; and, not shown, into Alaska, Canada, Mexico, and several foreign countries. Working drawings of the Bildcost houses pictured in this book are available to *you*. There's a variety of style, size, and appointment—a Bildcost house for almost every taste and need.

1. Bildcost Home No. 405, in Chillicothe, Illinois, was built by Mr. and Mrs. K. E. Mills. (*Clark*)

2. In adapting Plan No. 706 to their needs, Mr. and Mrs. C. R. Potter, of Gorham, Maine, added a porch on one side. Plantings have not as yet had a chance to develop properly. (*Tisdale*)

3. This Bildcost No. 703, built for Mrs. Anna M. Snell, of Syracuse, New York, carries out the exact detail of the original Bildcost drawings. (*Allen*)

4. Mr. and Mrs. Laurence J. Kisner, of Elkins, West Virginia, selected the story-and-a-half Tom Thumb, Gardened-Home Plan No. 603, with some changes. (*Valley Studio*)

5. Plan No. 211 turned out very beautifully for Mr. and Mrs. J. B. Taylor, of Brookings, South Dakota. Lower front is of white stucco. (*Clarin*)

6. Home of Dr. Robert Lyman, Fillmore, New York. This was built from the *Better Homes & Gardens* Bildcost Plan No. 609. (*Paine*)

7. Mr. and Mrs. Charles Berndt, Allentown, Pennsylvania, live in this version of Bildcost Gardened Home No. 602. (*John A. Kubil*)

8. Mr. and Mrs. H. S. Schick, of Huntington, West Virginia, built their home from No. 201, using brick instead of frame. (*Richard Averill Smith*)

9. Plan No. 405 was selected by the C.W. Guyatts, of Shrewsbury, Massachusetts. (*E. B. Luce*)

10. Mr. Willard W. Wilson, of Washington Court House, Ohio, is the owner of this Bildcost Gardened Home from Plan No. 504. (*Hays Studio*)

Building THE HOME

Problems of building, insulating, conditioning, equipping, and gardening your new home are considered in the section beginning here

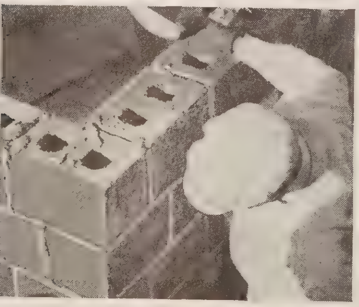
How to Get a Better Home

← 1 The basement excavation should be cut deep enough so the finished house looks as tho it sits on the ground, not on stilts. The finished basement should be at least seven feet from floor to ceiling. Pipes and heating ducts that cut into basement headroom should be avoided wherever possible.

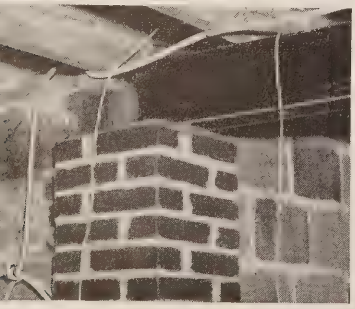
← 2 Supporting the whole house, foundation walls and all, is the *footing*. It must rest on solid, undisturbed earth. It must be square based, at least four to eight inches wider than the foundation wall, and amply thick to carry the load without cracking or settling. If it gives, even slightly, your house will twist. When building on ground that has sometime or other been filled in, footings should be reinforced with steel rods.

← 3 Concrete for footings is a mixture of clean sand, washed gravel or crushed stone, Portland cement, and water. It must be thoroly mixed, and this is best done by a machine mixer, which churns it up more smoothly than is possible by hand. Standard proportions are one part cement, two parts sand, and four parts gravel.

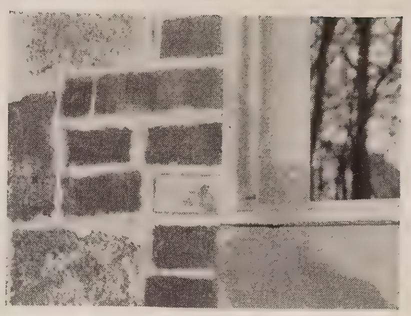
← 4 Mortar, used to cement bricks or masonry blocks, is a mixture of one part Portland cement, one part well-seasoned lime putty, six parts sharp, clean sand, and water. It, too, can be mixed by machine, but since smaller quantities are needed, and since smaller quantities can be mixed more readily by hand than by machine, hand mixing is satisfactory.



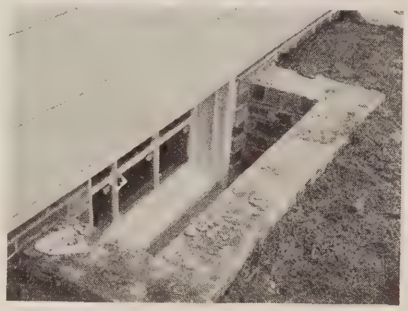
← 5 Foundation-wall thickness depends upon the height of the house and upon which material you use—tile, concrete, masonry, or any others better suited to your situation. In every case, wall thickness should conform to your local building code. In fact, your municipal building department won't issue your building permit until it does conform, and inspectors will check to see that it's built as specified.



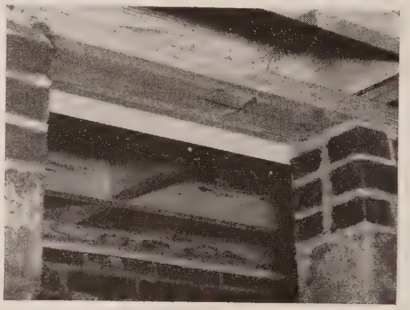
← 6 If the basement wall is constructed of hollow building blocks, it's imperative that *solid* masonry piers of brick or reinforced concrete be built into the walls wherever girders or concentrated loads occur. Subsidence of the walls will be averted whenever such loads are properly sustained.



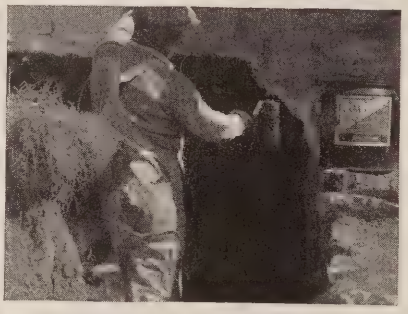
← 7 Construction around openings in foundation walls should be solid masonry. It's good practice to build window sills of solid brick, stone, or cast concrete. The lintel—the horizontal piece over the door- or window-opening to support the wall above—should be solid masonry or steel if there's to be a masonry wall above it; otherwise, wood framing is adequate.



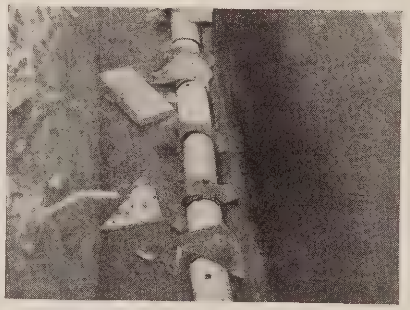
← 8 Foundation walls of frame houses should rise at least seven inches above the finished grade so that wood won't contact soil. This is an aid in preventing attacks by termites. Basement windows partly or wholly below grade level should be set in properly drained areaways for light and ventilation. In tight soil, it's necessary to send a vertical tile down to the foundation tile. In loose soil, sand or gravel in the bottom of the areaway is sufficient for proper drainage.



← 9 Unexcavated areas inclosed by masonry walls must be ventilated to keep joists from rotting and reduce danger of rodent and termite invasion. An opening between the basement portion and the unexcavated area should be provided to permit proper circulation of air.

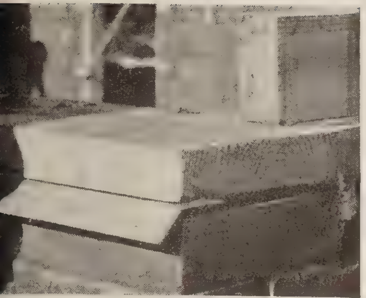


← 10 If the ground around the house is usually wet, it's necessary to waterproof the basement wall thoroly on the outside. Various forms of waterproofing are: one or two coats of a rich cement plaster; chemical waterproofers mixed into a special unpermeable concrete; a coat of liquid asphalt; membrane waterproofing; or any combination of these, depending on the requirements of the particular type of earth. Asphalt is being brushed on in this picture.

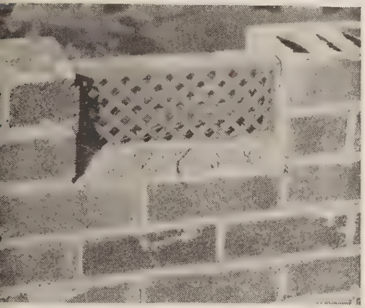


← 11 Essential in wet soil and a smart precaution in any soil is a line of four-inch tile laid in cinders or gravel around the foundation. The tile joints are left open one-quarter inch but covered with tar paper. The whole is covered with a thick layer of loose stone or gravel thru which the water can flow into the drain and into the sewer.

← 12 Frame houses must be anchored to the foundation with bolts imbedded in the foundation wall. Anchoring helps prevent movement of the superstructure on the foundation in violent windstorms, quakes, and floods that might do damage.



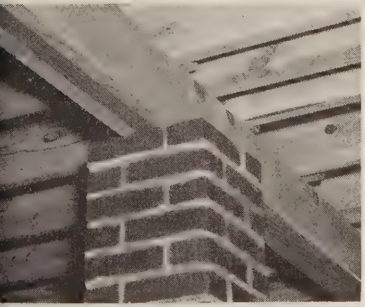
← **13** In many sections, copper termite shields must be built in between the foundation and wood framing to keep these voracious ants, that cause hundreds of thousands of dollars worth of damage every year, from eating away the house. The metal shield is insufficient in some sections. In this section specially treated wood should then be used for the first floor.



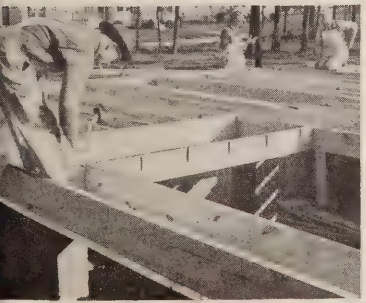
← **14** Another pest to guard against is the rat. All air vents and other foundation openings in houses built without basements must be shut off with strong grates. Some ventilators for basementless houses come just the size of the brick and extend entirely thru the wall.

← **15** Be sure the wood used in your house is thoroly dry—either sun dried or kiln dried. When thoroly dried wood is used, the danger of plaster cracking and floors buckling from the wood shrinkage is greatly lessened. Undried wood shrinks, warps, and checks, and causes no end of trouble.

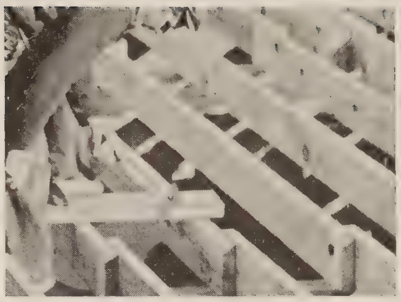
← **16** The sill of the house should not only be firmly bolted to the foundation but it should be laid in cement mortar, to insure a continuous bearing. This sill carries the whole weight of the house above, so be sure to have it large enough, and of a good grade of wood.



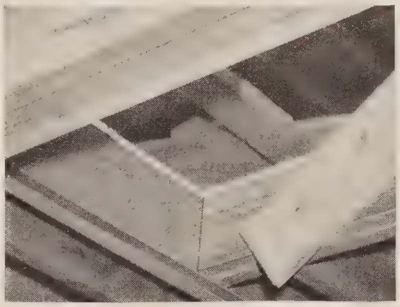
← **17** As important as the sill is the girder, which carries the weight of much of the inside of the house. Girders must be supported by solid brick or iron posts. They're made of steel (Picture 6), wood, or sometimes reinforced concrete. All girders should be leveled before being fastened to their supporting posts.



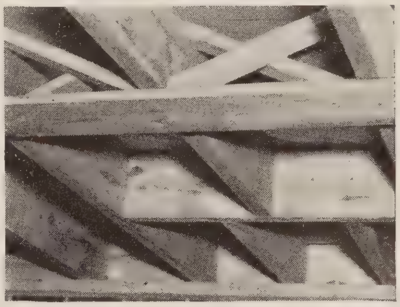
← **18** Joists—the beams on which the floors are laid—shouldn't, as a rule, be spaced on more than 16-inch centers. Depending on the span, joists will be from two to three inches thick and from 6 to 12 inches deep. They must be of such proportions and so spaced as to prevent the floor from sagging.



← **19** Joists must join, preferably overlap, on the girders. They should be spiked to the girder and to each other. And they should *never* be spliced or otherwise fastened together between the girder and the wall. However, the use of continuous joists across a girder should be avoided wherever possible. Such continuous joists occasionally cause the floor to buckle if there's no load-bearing wall above. Joists should be double under all partitions.



← **20** Along each side of all the openings in the floor—stairways, chimney, hot-air vents, and the like—joists should be laid double. And each end of such opening should be supported with special double beams called "headers." This double framing amply supports the floor under such openings.



← **21** Bridging—or X-bracing nailed up between joists to make them more rigid and to aid in distributing concentrated loads—should always be installed wherever spans are more than eight feet long.

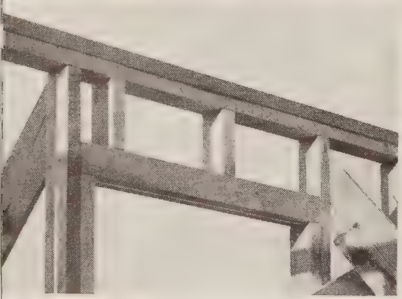
← **22** If there's no basement, treat every bit of exposed woodwork in the underside with wood preservative to prevent decay and deter termites. Such framework should be *at least* 18 inches, preferably two feet, above ground level.

← **23** The long plank used to box the ends of joists is an additional bearing member for the wall above. It must be firmly spiked to the joists.

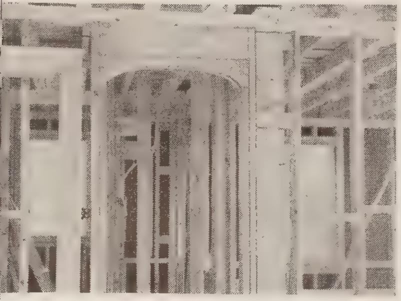
← **24** Subflooring should be laid diagonally. This causes some wood waste, since the ends must be sawed off diagonally, but prevents finish-floor joints from warping and opening.

25 Corner posts of the house must be strong. Specifications for these posts differ with the height of the house, but even for the simplest one-story home, the posts should be made up of at least *three* 2 x 4's strongly nailed together.

26 Much the same specifications hold for studs—the upright framing members of the house—as for joists. Studs, never less than 2 x 4 inches in cross section, usually shouldn't be spaced more than 16 inches from center to center. They should never be more than 20 feet long and, like joists, should never be spliced. In homes with extra-high ceilings, each floor must be framed separately, a method of building called *platform framing*.



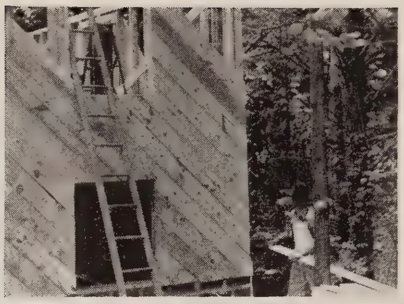
27 A wall has much weight to carry—the roof, the floor, the plaster, and any dead weight in the attic and on the floors. All openings in the wall must be reinforced. Studs should be doubled around all windows and doors. Double headers—two 2 x 4's set on edge—should be built over openings.



28 Headers above arches and wide doors and windows should be enlarged to take care of the additional load. Either a solid reinforcing lintel, as illustrated, should be built in, or else—especially for wider archways—a system of trusses. Either carries the weight overhead to the sides of the arch.

29 All wall studs should be capped at the top with a double *plate*—two 2 x 4 beams—and rest on a single 2 x 4 plate at the floor. These plates are both load-bearing members and fire-stops. Fire-stops block the flue-like spaces between the inner and outer walls and thus stop drafts from sweeping a small flame into an inferno.

30 Be sure the frame of the house is at least two inches clear of the chimney masonry and firmly constructed around floor openings, with doubled headers secured to short joist members called trimmers, with doubled studs in the adjacent wall construction. Never allow the ends of joists, sills, girders, or studs to be fastened into the chimney masonry. In time they may dry out and catch fire.



31 To make the strongest wall, sheathing—the wide boarding over the studding—should be applied diagonally. Diagonal sheathing makes the wall from four to seven times stronger than horizontal sheathing without corner bracing, according to laboratory tests.

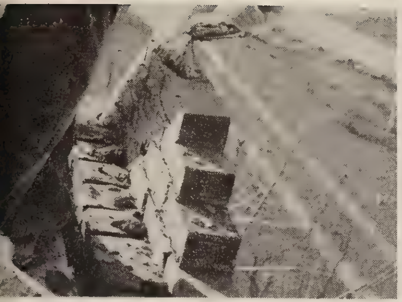
32 Modern science has developed special types of fire-resistant clay flue-linings, invaluable to protect and strengthen the chimney. Always specify one of these fireclay flue-linings; the slight additional cost will often be repaid in the fire protection and removal of chimney troubles.

33 Chimneys should always reach at least two feet higher than the highest point of the roof, partly for fire protection, mostly to get a good draft. Otherwise the chimney may produce down-drafts that cause the heating system to work poorly, the fireplace to smoke.

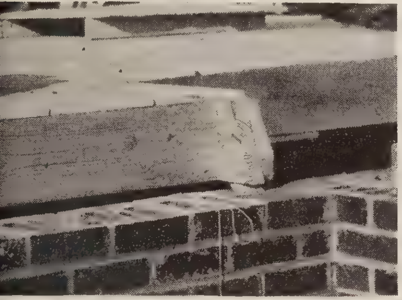
34 The base of a fireplace hearth should be concrete carried on a brick arch springing from the chimney itself, or a reinforced concrete slab anchored from the chimney. This construction will eliminate unsightly settling of the hearth itself.

35 If your house is built of brick instead of frame, there are several important things you should know. No matter how small the house, one-story or two-story, the masonry wall should never be less than 8 inches thick, unless it's a brick-veneered wall in which a layer of brick is laid against regular frame construction.

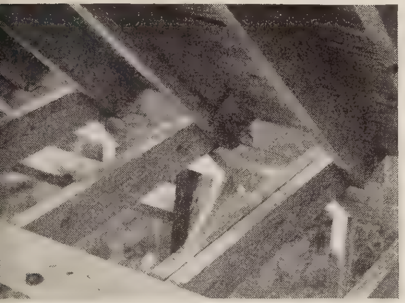
36 To improve the watertightness of masonry walls, use well-mixed mortar containing sufficient lime. Just as important is a full and well-pointed joint between each unit of masonry. Pointing, or tooling the joint, helps to prevent moisture penetration and in chimneys stops air leaks thru the masonry backing.



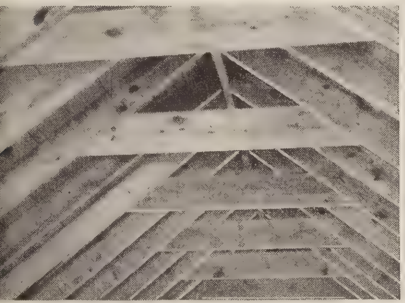
← **37** Brick walls of more than one brick width should be bonded at every fifth or sixth course, or row, with a header course. The header course consists of bricks laid at right angles to the regular brick layers and tends to bind the inner and outer layers together, making the wall act as a solid mass.



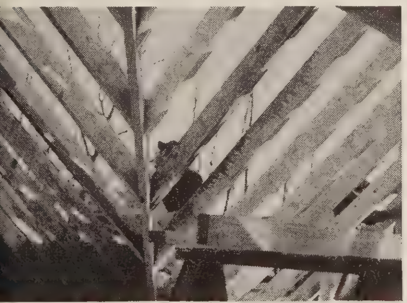
← **38** Joists in a brick house are secured to the masonry wall, and every fourth joist is fastened with metal anchors. In case of fire, joists not properly cut at the ends might collapse and bring parts of the wall down with them. To obviate that danger it's usual to cut the ends of the joists diagonally so that if they should collapse, they'll free themselves from the wall when falling.



← **39** Roof framing is practically identical in both frame and brick houses. For rigidity, the lower ends of all rafters should rest on the wall plate and be spiked wherever possible to the ceiling joists.

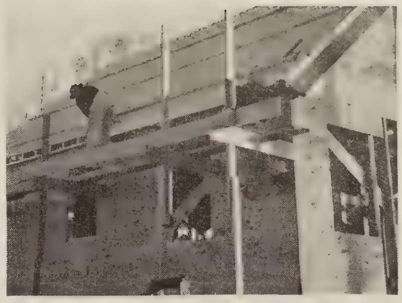


← **40** Altho the ends of the rafters are secured by nailing as just described, collar beams (the cross-braces shown) should be used above the midpoint of the rafters to avoid spreading. Sagging roof ridges are picturesque on old houses, but you don't want yours to be antique before its time.



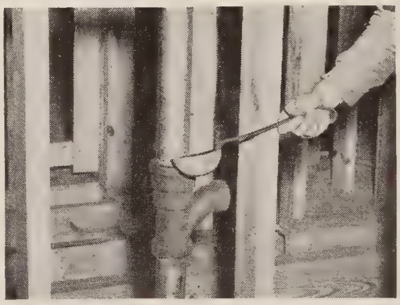
← **41** Wherever an L occurs in the roof, there's a junction of the rafter ends. A valley or hip rafter should always be inserted at that place as a nailing support for these rafter ends. Without it there would be no way to keep the roof from sagging at that point, as it would be sure to do without a rigid member to receive the weight concentrated at their intersection by the rafters.

← **42** Roof-sheathing, unlike side-sheathing, is laid horizontally. It should be laid solid wherever the finished-roof covering demands it. Wood shingles, as a rule, are laid on wood-shingle lath, spaced evenly apart.

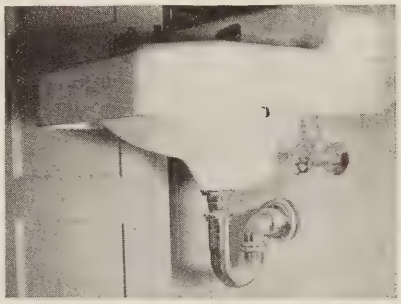


← **43** The lower ends of the rafters, projecting out to form eaves, should be boxed. This boxing closes in the rafter ends with solid boarding, thus improving the appearance of the house considerably and keeping wasps' nests and the like from accumulating between rafter ends.

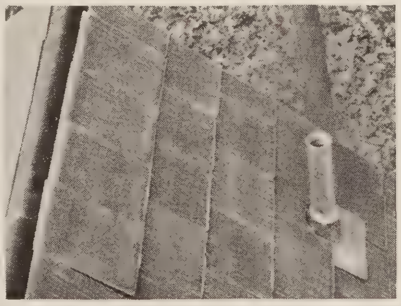
← **44** When plumbers and electricians install their pipes and cables, they frequently have to cut into joists and studs to make room for their lines. They shouldn't *notch* these structural members of the walls and floors, for notching weakens them. Rather, they should whenever possible *bore holes* as nearly as they can thru their centers.



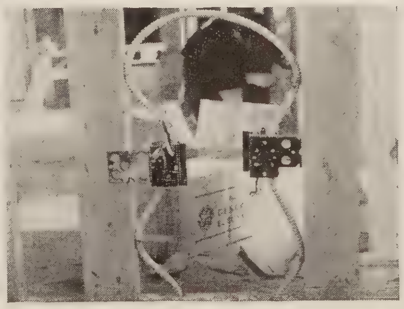
← **45** Every joint in a soil pipe should be caulked, then soldered or filled with lead. In fact, all liquid-bearing pipes whose joints aren't threaded should be thus protected. Without these precautions, there may be serious annoyance from leakage. Melted lead is being poured into the joint here.



← **46** All plumbing fixtures and soil-pipe lines should contain traps to prevent odors from entering the house. A trap is a U-bend in a waste pipe which remains full of water and blocks off any backflow of gases from the pipe below the trap.

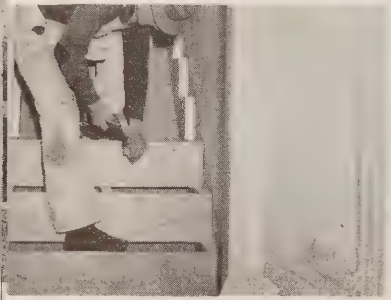


← **47** All traps should be vented to carry off accumulations of gases and odors from fixtures in the kitchen, bathroom, laundry, and so on. Whenever possible these vents should be joined together and should penetrate the roof in a single vent stack such as is shown here.



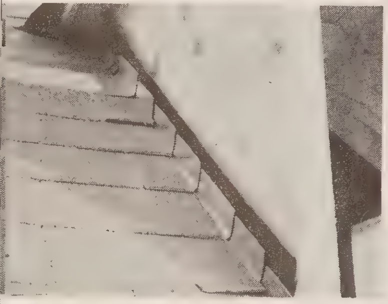
← **48** When electric wiring is installed, make sure the cables are adequate to take care of varying loads of each circuit. If the cables are too small, you'll pay for more electricity than you benefit from. Even if not immediately necessary, install power circuits for electric ranges and other heavy-duty equipment.

← **49** Never build a stairway with less than 6 feet-8 inches of headroom at the lowest point. More space is desirable. Even with 6 feet-8 inches, tall people are likely to crack their heads against a protruding beam, ceiling angle, or the door-top when they step up.

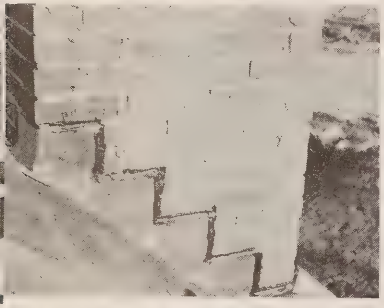


← **50** Another important thing about stairs is to be sure that the *run*, or *pitch*, makes them easy enough to climb. This means that they shouldn't be too steep. Minimum width for a stair tread (the part you step on) is 10 inches, including the nosing—more if possible. And the height is 8 inches or somewhat less.

← **51** Heavy weather-and-water-resistant *builder's paper*, a type of sheathing paper treated with some material like tar, should always be put on top of wood-sheathing, and, if possible, on the inside of brick walls under the furring; the paper insulates against moisture penetration. When wood shingles are laid on shingle lath in roof construction, however, the lath is left open, without paper.



← **52** Places in a roof susceptible to leaks are the joints between the dormers and the roof, openings for vent stacks and chimneys, and the valleys. To lessen the danger of such leaks, these joints should be flashed, as shown, with heavy rust-resistant metal. The metal extends under the shingles and up under the siding.



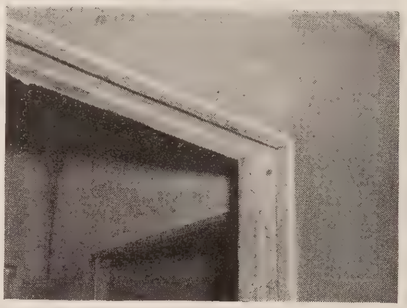
← **53** Heavy flashings should be installed all around the intersection of the chimney and roof. Well-set flashings need not be filled with this black, asphalty cement. But if the flashing leaks, cement is a way out.

← **54** Window frames, door frames, and the like are manufactured in mills and sometimes delivered unpainted. They should be *primed*, or at least *backprimed*, as soon as they arrive. This means that either the whole surface, or at least the back part which fits in against the wall of the house, should have a priming coat of paint applied to preserve the wood and prevent warping.

← **55** Siding or shingles on the walls, and shingles on the roof, should overlap sufficiently so that a beating rain or snow cannot force its way in. The amount of lap depends on the length of the shingle.

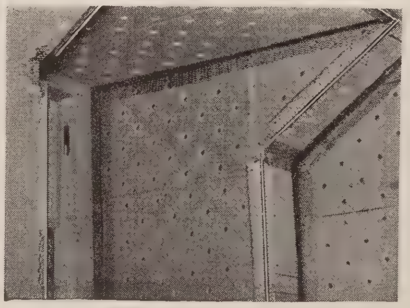
← **56** To get a good paint job, the wood must be thoroly clean and dry, all holes puttied (see Picture 65), the surface smooth, and white lead and oil or a high-quality paint applied to all surfaces according to the manufacturer's specifications. The first coat is a priming coat that penetrates into the wood, seals the pores, and forms a base for the coats that follow.

← **57** Heat, at least in the homes of the north, is one of the home-owner's most expensive items. Good insulating material in the outer walls and the roof can cut heating bills as much as 30 percent. Here bats of insulating material are being stapled into the walls of a house. There are various kinds of insulating materials—insulating boards, heat-reflecting foils, bulk insulations, and bats such as shown here . . . helpful in summer, too.



← **58** Wood trim for doors, windows, and baseboards must have proper *grounds* for applications. Grounds are nailing strips fastened into the wall construction so their outer surface is level with the finished plaster. Trim, except possibly picture mouldings, should never be nailed to plaster. View shows grounds for the finished door jamb.

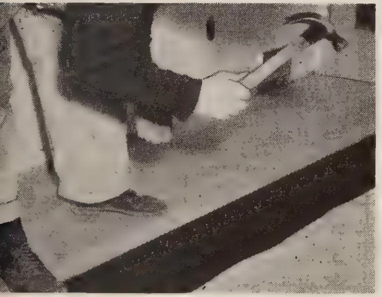
← **59** Plasterboard lath is becoming more popular each year. It's easily applied and provides a very solid bond. Some types of plasterboard are bored at frequent intervals, as in the next picture, to offer a tighter key for the plaster. Others, such as the one shown here, are so made that they hold the plaster tightly without holes.



← **60** Metal corner beads should be installed at all exposed plaster corners. It's important that these beads be applied plumb and true, to permit application of even wall surfaces.

← **61** The first two coats of plaster—the scratch coat and the brown coat—can be applied the same day, if a little time is allowed for the first, or scratch, coat to set. But these two rough coats must be allowed to dry at least three to five days before the finish coat is put on. The time depends upon relative dryness or dampness of weather.

← **62** The finish, or white, coat of plaster should be mixed with great thoroness and precision to avoid lumps and future discoloration from incorrectly blended ingredients. This coat should dry from two to three weeks, again depending upon the weather, before trim is put in, wallpaper hung, or any paint applied to its surface.



← **63** A heavy builder's paper should always be nailed down over the subfloor before the finish flooring is laid. This paper is a barrier against dust penetration and a partial sound-deadener. Finish flooring should be at least 13/16 of an inch thick, and the nails driven in from the sides of the flooring boards so that the next board covers the head. This eliminates nail holes in the floor and the possibility of a loosened nail tripping one up or cutting a bare foot.

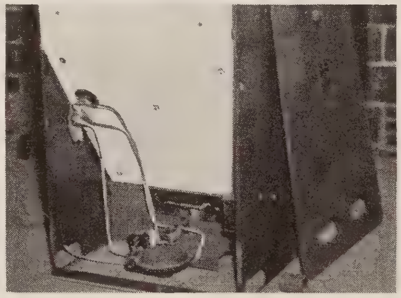
← **64** Hanging doors is a job for skilled carpenters only. Even the best hardware when poorly applied won't work well. An expert carpenter chisels out the spaces in the door with great accuracy, without any splitting of the wood or cutting of the holes so big that they might cause loosened locks, sagging hinges, and rattling doorknobs.

← **65** All nail holes, knots, and other marks in woodwork, exterior and interior, which is to be painted or stained, should be treated to permit a satisfactory surface on which to apply the finish. A nail hole, or knot, unfilled, causes paint to drop and crack and offers a place for dust to settle and make unsightly black marks. Holes should be puttied after the prime coat of paint is applied so that the wood won't absorb all the oil from the putty and leave it crumbly.

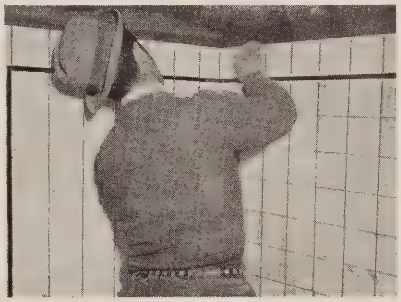
← **66** Wallpapering is a skilled job. Paste must be correctly mixed; the paper cut so that the patterns fit; the strips firmly brushed out to remove all wrinkles; the sheets hung straight. Demand the best workmanship.

← **67** Flooring is always laid unfinished, then scraped and sanded before the wood is filled, stained, shellacked, or waxed. Scraping takes off a thin layer of the flooring, leaving clean wood. Sanding smooths the floor for finishing.

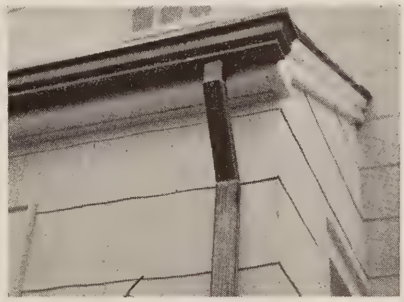
← **68** Whatever floor finish you choose, a coat of filler is the first thing applied. Then the floor is rubbed down with fine sandpaper and finished with the various coats of stain, shellac, and wax as desired. These finish coats must be applied swiftly and evenly to avoid streaking. And the floors are never finished until the rest of the house is complete.



← **69** Choice of heating equipment depends in part upon the relative cost of gas, coal, oil, and electricity in your neighborhood. The plant must be large enough to keep the house at 70 degrees in any weather. Much heat is lost in homes where money has been "saved" by not insulating the pipes which carry hot water and steam to the rooms. Be sure they're all covered with some satisfactory insulation wrapping. In many sections, insulating hot-air vents isn't necessary.



← **70** So that bathroom tile won't come loose and fall out, see that the tile is applied with a special binder of pure cement and water atop a firm, well-scratched coat of cement plaster on metal lath. This sandless plaster holds the tile firmly. To keep floor tile from buckling, a bed of concrete is laid between well-furred joists, and the tile laid on a pure cement topping.



← **71** Without a system of gutters and leaders, rain and melted snow off the roof will dig unsightly little ditches along the ground where they drip. Metal gutters should always be rust-resistant to assure greater durability.

← **72** Lawns should always be graded away from the house so surface drainage won't seep down into the basement. Whether the house is on a hill or in a valley, the pitch must be sufficient to drain all water away from the foundation.

Waterproofing

BECAUSE cellars today have become basements in which we live and play and work, dampproofing is an important phase of building.

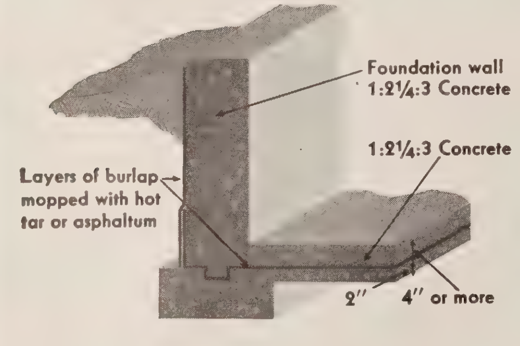
When it's built, the foundation of a house can be made thoroly waterproof at comparatively little expense, whereas when leaks develop after completion it's far more expensive to correct them. A well-constructed basement should be just as effective in keeping water out as a swimming pool in keeping water in.

The ideal building site is one upon which the grade falls slightly away from the house in all directions. Where the land slopes toward the building, it's advisable to intercept surface water by laying drain tile to carry off water before it reaches the house; provide a smooth downward slope, extending at least 10 feet about the entire foundation. Unless downspouts are adequate, water won't be carried away from the foundation. Where there are no storm sewers, leaders may spill into a surface gutter.

USUALLY it's desirable to place a line of drain tile in a trench around the outside of the basement, level with the footings, which drain to a suitable outlet. This trench should be back-filled with coarse gravel or crushed stone to within a foot or so of the surface, and finished with topsoil. Joints between the tile should be wrapped with burlap or sacking to keep out dirt or sediment.

Porous walls, a result of poor workmanship or materials, are frequently the cause of foundation leakage. The naturally porous structure of stone readily permits water seepage, but stone walls laid in good Portland cement mortar, with the outside covered with two coats of mortar, can be made watertight. Brick, tile, or concrete-block walls need a good mortar joint to exclude water. Cement blocks should always be of the best and made under proper conditions.

For new construction against ground-water pressure



In all concrete work, construction should be attempted only when the excavation is dry; otherwise a sump or pump hole should be dug in the ground near the outside of the building to drain the excavation. If the concrete is deposited in water, or if there's seepage thru the concrete at the time of construction, the work won't be satisfactory.

IF WALL is less than necessary thickness, if footing is inadequate or rests on insecure ground, cracks may develop. A foundation usually settles; if unevenly, in the process it develops cracks. Good footings are essential to a dry basement. It may be necessary to make the footings wider and thicker and reinforce them with from 4- to 8½-inch rods. They should be constructed with a groove formed in them as a key, as shown in the illustration. The groove should be about 3 inches wide and 3 inches deep, running horizontally along the center of the top of the footing, and with the wall above, the final effect is like a tongue-and-groove joint.

Everything said about porous walls and cracks in walls applies also to floors. If a concrete floor isn't at least 4 inches thick, it will crack. If its mix isn't correct, it means water seepage.

A strong, durable foundation is the first requirement for a house, and experience points to concrete as the best available material. It should be mixed precisely as recommended by the Portland Cement Association (33 West Grand Avenue, Chicago). The point cannot be stressed too strongly that to assure successful work all recommendations as to ingredients, proportions, and general working conditions must be followed.

When a basement-floor level is normally close to the ground-water level, trouble will occur during rainy seasons. Houses built close to water are particularly subject to basement leaks, due to changes in the ground-water level.

While the means by which a basement may be waterproofed are many and diverse, the general methods are few. So-called integral waterproofing is perhaps the most common method. A compound obtainable in powder, paste, or liquid form is mixed in recommended proportions with water used in making joint mortar for laying blocks, bricks, or stone, and for surface coatings.

Or, apply a water-resistant coating to the surface of a foundation wall or floor. Sometimes such a coating on the inside of a wall and on the top of a floor slab is successful, but the proper place is on the outside. The cement mortar should be applied in two distinct ⅜-inch coats, giving a final thickness of ¾ of an inch. The first coat should be scratched and allowed to dry thoroly before the second coat is applied. Integral waterproofing compound may be used in this cement mortar as added precaution. A full inch thickness of cement mortar, either with or without integral waterproofing admixture, may be laid on top of the basement-floor slab.

Of other materials that may be applied against the outside of a wall, some contain pitch, some asphalt or wax or asbestos fiber, some water-gas tar, or coal tar. In every case the maker's directions should be carefully followed.

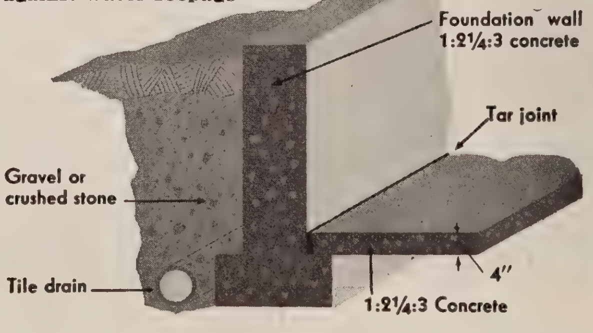
Concrete for walls and floors is most satisfactory in resisting ground water. If an unreinforced concrete floor is used, it must resist, by its own weight, the water pressure from below. A 6-inch slab is needed to resist the upward pressure of a 1-foot head of water. Where a plain slab would be excessively thick, a reinforced slab would be more economical, but it should be anchored to the walls and intermediate partitions by metal bars, standard wire, or expanded metal mesh embedded in the concrete.

THEN, as a positive seal, the floor is made in two layers with waterproof membrane between. Membrane waterproofing is the most important method and the one that most successfully meets all serious water conditions. Resort to less expensive means may be had when there is a strong probability that these will suffice, but no method supplants using membrane waterproofing. The membrane is composed of several layers of felt or fabric, each of which is coated and bonded with some hot bituminous material (asphalt or coal-tar pitch). This should be laid in the floor and continue across the footing and up the outside of the wall to the grade level. The entire outside surface of the basement wall below the ground line should be covered with as many additional hot-mopped membranes as the conditions require. In replacing the back fill, be careful to avoid puncturing the waterproofing.

Sheet-copper membrane in a range of weights to suit various requirements is often used in place of felt or fabric, or in combination. Some membrane is copper only; some is bonded with felt or building paper.

Illustrations by Sigman-Ward

For new construction against water seepage



RECOMMENDED CONCRETE MIXTURES FOR FOUNDATION WALLS AND BASEMENTS

KIND OF WORK	GALLONS OF WATER TO ADD TO EACH ONE-SACK BATCH IF SAND IS—			TRIAL MIXTURE FOR FIRST BATCH			MAXIMUM AGGREGATE SIZE (INCHES)
	DAMP	WET	VERY WET	CEMENT	SAND	PEBBLES	
BASEMENT WALLS	5½	5	4¼	1	2¼	3	1½
FOUNDATION WALLS FOOTINGS	6¼	5½	4¾	1	2¾	4	1½

Crackproofing

It's hard to laugh off the cracks—so *prevent* them, when you build, by a little common sense and a few major precautions

A CRACK doesn't just happen. There's always good and sufficient reason—structure, quality, workmanship, or maintenance—for its existence. Like everything else in your house, it's a product of the way you've built or of the manner in which you care for your home.

The most deep-rooted cause of cracks (and one of the most common) is uneven settlement of the house. Your foundation walls usually have what are called "footings" at the base. These serve to distribute the weight which is transferred down thru the wall over an area of ground sufficiently large to withstand it. Since the intensity of the load varies, the footings must be calculated with this variation in mind—so any settlement which takes place will be uniform.

IF, THRU faulty design of the footings, some parts of the house settle more than others, there's bound to be some distortion within the building. Studs and joists, door jambs and heads, which were built at absolute right angles, are twisted slightly out of place—so slightly, very often, that the distortion is invisible to your eye. However, the plaster on the walls and ceilings of your home becomes aware of the resulting pressures and makes known its discomfort in the only means of expression it has—cracks. Similarly, open joints will appear around your doors and window trim, and also at the floor baseboards.

Structural distortion may take place also thru sagging joists and rafters. Yet some sagging is inevitable. Any structural member will "give" when a load is imposed upon it. The amount of sag which takes place is called "deflection," and must always be taken into consideration when the beam sizes are calculated. Deflection less than 1/360 of the span over which the member rests is structurally acceptable and will cause no damage.

If, however, the member is too thin for its span and the deflection is greater than the allowable 1/360, your ceiling plaster will inform you!

A third kind of distortion is due to shrinkage in the structural members. The mistake of ignoring such shrinkage is often made because it's so very small in any individual member. But when you add the infinitesimal shrinkage of the sill to that in the joists, the plate and rafters, the sum may be great enough to result in the entire structural part of the wall becoming considerably shorter than the facing which is placed upon it. The facing, if siding or shingle, then bulges; if stucco, it cracks.

All the foregoing cracks are due to faults structural in origin. When you build, be sure the footings and structural members are well calculated, and that the lumber you use is thoroly seasoned.

OTHER types of cracks—in stucco and plaster—often occur because the backing (wood or metal lath) has been improperly installed. You'll save yourself many repair bills if you'll remove the whole area of offending plaster or stucco and replace the lath; but, of course, it's better to prevent it by seeing that installation is correct in the first place.

Sometimes tile floors try to give small imitations of the Grand Canyon because the fill material used between the joists below the tile hasn't been tamped down sufficiently. Watch that when you build.

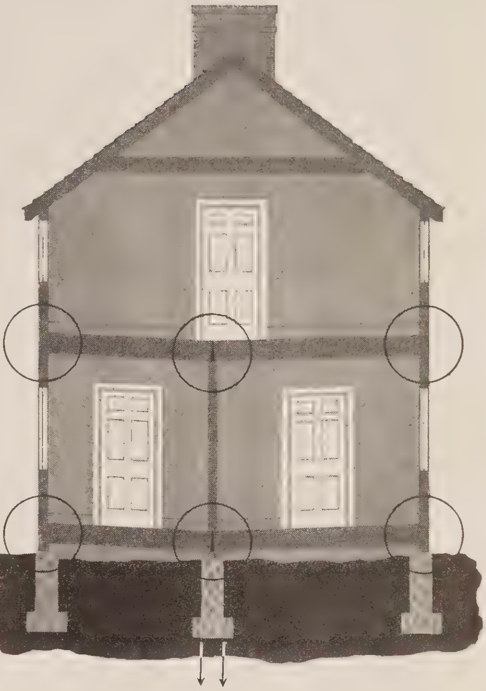
Cracks in window glass may be due to frames too thin or too fragile to withstand the stresses they must bear, due perhaps to the custom of designing frames the same size thruout the house or portions of it, for sake of architectural uniformity. Be sure to provide sash strong enough to withstand all stresses.

However, don't be too quick to blame your contractor or materials-supply man for cracks. There's a whole category of cracks which aren't due to structural faults or flaws in workmanship, but to your neglect or incorrect maintenance.

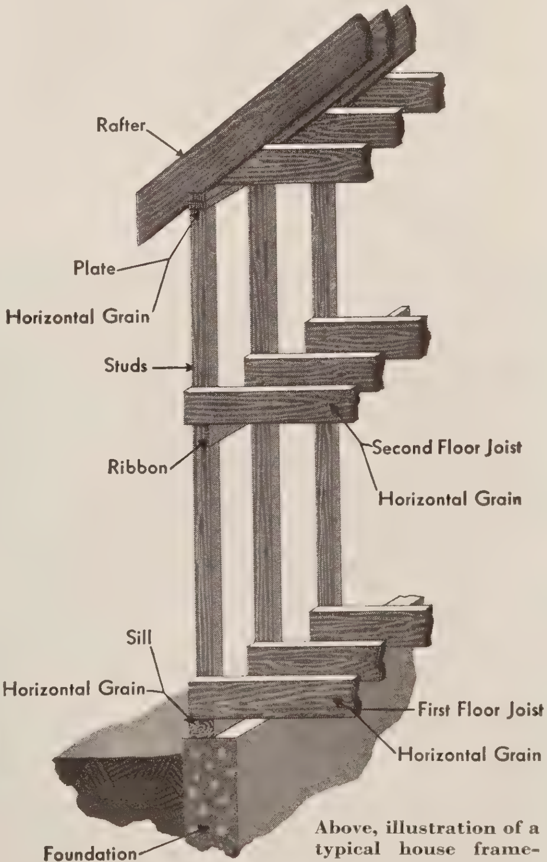
For example, seven full months the interior of your home is being gently but constantly baked. Continued application of heat and low humidity draw moisture out of the cells which make up the wood fiber and from the tiny molecules of your plaster.

A warm-air heating system may be fitted with an inexpensive humidifying unit, steam or hot-water heating systems equipped with any of a variety of humidifiers. That will prevent a lot of cracking from this cause.

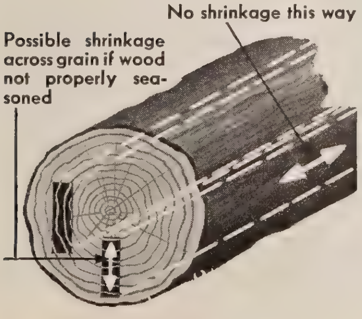
Then consider leaks. You may be to blame in allowing tiny leaks to go unrepaired until they be- [*Turn to next page*

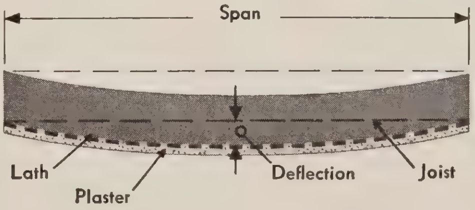


Often some part of the foundation is found to be loaded more heavily than elsewhere, which tends to make it settle, causing distortion and plaster cracks at the points which are circled



Above, illustration of a typical house framework, showing where shrinkage occurs across the wood-grain, totaling enough to cause some very serious cracks


No shrinkage this way
Possible shrinkage across grain if wood not properly seasoned



Above: Too light floor joists will take deflection, causing cracks in plaster ceiling beneath

come really annoying. Altho you've forgotten that tiny leak, you may be sure your house hasn't. Moisture in undetected quantities continues to seep thru and to cause eventual plaster cracks or wood warpings.

There's scarcely need to mention proper painting as an indirect means of preventing cracks. All of us are pretty well aware by this time of the importance of protecting surfaces exposed to weather or other destructive elements, such as kitchen fumes, excessive moisture (such as in bathrooms), or smoke from "smokeproof" fireplaces. When you keep your paint job in proper condition, you save the surface, and you prevent moisture from entering pores of material with consequent deterioration and cracking perhaps to full depth.

However, you don't thereby automatically prevent all harmful influences which may operate from within the wall or ceiling, nor do you overcome crack causes which are inherent in the material or structure of your home.

Taking everything into consideration, there's a great deal that can be done, at the time we *build*, to *prevent* the appearance of cracks. If, however, in spite of your precautions, cracks appear, don't feel too badly about them. After all, we ourselves reflect the passage of the years—don't we? For that matter, we might say a crack is just a wrinkle on the beloved face of Home.

Plastering

Make it stick! That's the important thing. And the use of good materials assures lasting results

PLASTER is a covering material which transforms the walls and ceilings from a rough skeleton to a finished form. It must be tight, reasonably soundproof, flame-retarding, washable, and impervious to temperature, odor, or chemical reactions.

Modern plastering consists of 3 separate coats as specified in the check list at the right. While the basic proportions of the mix are standard thruout the United States, variations, depending upon the type of base over which it's applied and upon climatic conditions and the kind of sand and water used, are permissible.

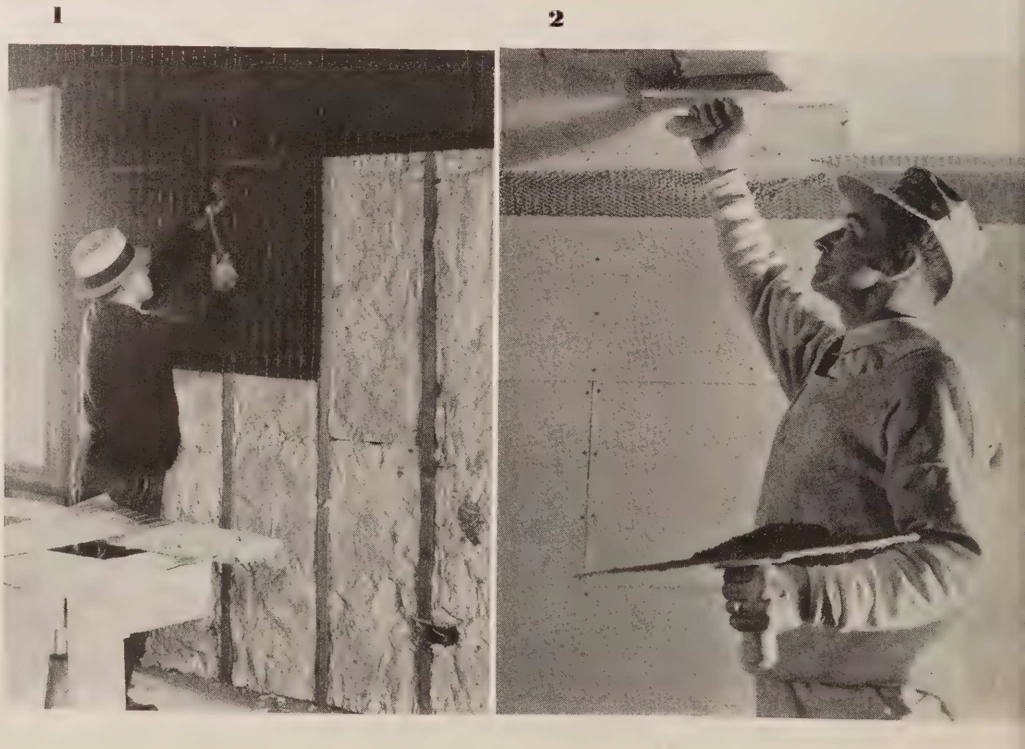
Lath is the base to which plaster is secured by either a "mechanical bond," such as for metal lath, or by "suction bond," such as is furnished by the minute air cells of gypsum lath. Selection of suitable lath and the assurance that it's properly installed are of great importance. The various types are listed by columns in the check list, beginning at the left with wood lath:

(1) Wood lath, most commonly used, is low in first cost but more likely to buckle and warp; (2) gypsum lath is a fireproof, porous sheet; (3) wire lath, a woven wire mesh grid, comes with or without a fibrous sheet backing; (4) metal lath, an expanded metal grid, is furnished in several pattern forms; (5) insulating lath is a porous wood- or vegetable-fiber sheet and has heat-insulating properties; (6) brick, gypsum block, terra-cotta tile, and concrete all serve adequately as bases for plaster.

AMONG recent developments is the "floating system," by which standard metal or gypsum lath is suspended from the supporting members by means of semiflexible clips. It's claimed this produces a cushioning effect, thereby minimizing sound transmission; gives greater protection against cracks; and eliminates streaks or stains. A development in heat-insulating lath is found in the application of shiny metal foil against the back of the lath to reflect radiant heat and reduce heat penetration either in or out.

FACTORS that mar plasterwork are: (1) dry-outs, a hot-weather problem (chalky-appearing spots due to moisture-evaporation before plaster has set); (2) sweat-outs, a cold-weather problem (damp spots caused by the plaster's having set before sufficient water has evaporated); (3) frozen plaster (damp walls of a dark color; can be avoided by artificial heat if plaster must set in cold weather); (4) slow-setting (usually due to impure sand or organic matter); (5) quick-setting (poorly selected or mixed ingredients on the job); (6) sand troubles (too much sand gives weak walls).

Other causes of plaster failure for which the plastering contractor isn't to blame: (1) movement of large timbers; (2) foundation settlement; (3) chimney movement; (4) wind-pressure strains; (5) too-light construction. See helpful table on the opposite page.



1: Over insulation "bats" the lather applies wire lath on a sheet felt backing. 2: The plasterer applies the first coat on gypsum board; note the metal-lath reinforcement between wall and ceiling. 3: The second, or "brown," coat goes on after the scored first coat sets. 4: Scratch-coating on fine-meshed expanded metal lath. 5: The final, or "white," coat is troweled to a smooth surface

The most important element in a new home, from the finished-appearance standpoint, is the interior plaster on walls and ceilings. If it cracks or is mechanically imperfect your decorative scheme will be ruined and your repair costs high. Better Homes & Gardens therefore presents for your information this check list of all the approved lathing and plastering materials, with the suggestion that you check your builder's specifications before that work starts.

WOOD LATH	**GYPSUM LATH**	**WIRE LATH**	**METAL LATH**	**INSULATING LATH**	**MASONRY WALLS**
Use No. 1 white pine, cypress, or spruce, free from knots, sap, and bark; lath to be spaced not more than 3/8 inch nor less than 1/4 inch apart. To avoid long, straight, vertical joints, not more than 7 laths shall be laid up directly over each other. Two nails at ends of lath and 1 at supports. Lath shall be soaked before plaster is applied.	Lath shall be not less than 3/8 inch thick. Boards shall be staggered to avoid continuous vertical joints at all points. Nail 4 inches apart at each support. Do not wet lath. Use metal reinforcing at all joints, angles, and around all door and window openings.	Nail every 6 inches at supports or equivalent with clips. Lath shall be staggered to avoid continuous vertical joints at all points. Lath shall be bent around all interior and exterior angles and lapped at all joints.	Nail every 6 inches at supports or equivalent with clips. Lath shall be staggered to avoid continuous vertical joints at all points. Lath shall be bent around all interior and exterior angles and lapped at all joints.	Lath shall be not less than 1/2 inch thick. Boards shall be staggered to avoid continuous vertical joints at all points. Nail 5 1/2 inches apart at each support. Use metal reinforcing at all joints, angles, and around all door and window openings.	Use gypsum or cement plaster on terra-cotta tile or brick walls. Wet walls before applying the plaster. Use gypsum plaster on gypsum block walls and do not wet walls before applying plaster. Use cement plaster on concrete walls and wet walls before applying plaster.

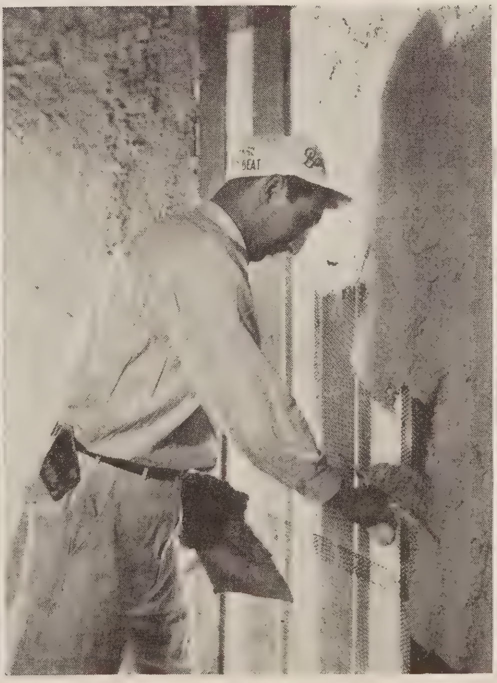
Thickness, including lath and plaster, from face of supports to finished plaster:

7/8 inch	**7/8 inch**	**3/4 inch**	**3/4 inch**	**1 inch**	**5/8 inch**

Plaster shall be applied in three (3) coats:—scratch, brown, and finish coats.
All areas shall be plastered uniformly to the required thickness.
Plaster shall be kept from freezing 24 hours after application. In hot, dry weather all openings shall be screened to prevent drying out before plaster has set.
Scratch coat shall be of two (2) parts sand to one (1) part plaster, by weight.
Brown coat shall be of three (3) parts sand to one (1) part plaster, by weight.

3

4



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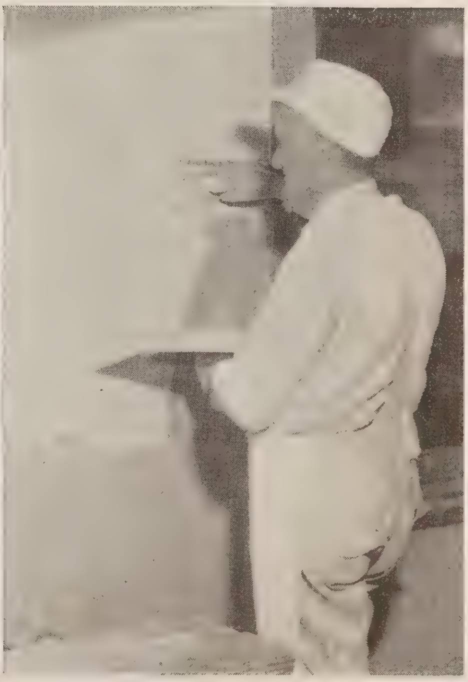


Roofing

Be sure it's a good roof. Both in texture and material, your roof makes or breaks the artistic merit of your home

A ROOF should be considered as an integral unit of the house, its design and shape conforming to and enhancing the general architectural scheme. There are four fundamental types of roofs: (1) flat; (2) gable—two sides running up to a ridge, leaving gable ends; (3) hip—a roof in which all four sides come to a peak or ridge, with skylights or dormers necessary for light; (4) gambrel—the result of a desire to enlarge the attic headroom by bending out the slopes of a gable roof.

Varieties of shingles available include: (1) wood, (2) asphalt, (3) composition, (4) asbestos, (5) tiles. Other roofings are: (1) slate, (2) metal roofings of tin or zinc or copper in sheet and shingle form, (3) rolled or strip composition roofing.

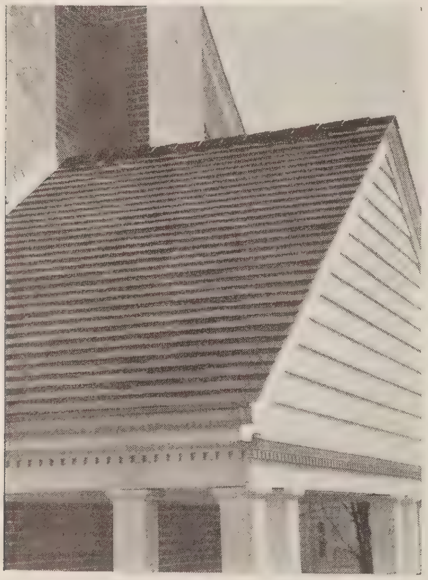
Eighty-five percent of the wood shingles used today are made of Western Red Cedar. Southern Cypress, California Redwood, and Eastern White Cedar are used, but Western Red Cedar is particularly adapted. It has a straight, even grain; splits easily; has an oil, peculiar to this wood alone, that renders it immune from ravages of fungi and insects; and its wearing qualities are well known.

Unstained shingles are naturally less expensive than stained, but, since maintenance cost must be figured in with the original cost and since it's been pretty well proved that stained shingles last longer than unstained ones and since color is so necessary for an artistic roof, it would seem poor economy to use unstained shingles. Shingles of various shades can be blended with gratifying effects on any type house, or solid-color roofs of soft greens, browns, or reds are a joy.

Celotex

The ideal roof is a crowning glory to your home

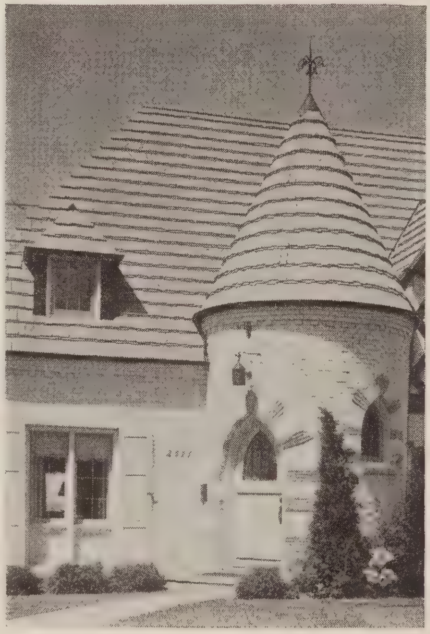
Johns-Manville



And here's an asbestos shingle you can't distinguish from wood at a distance. Most composition, asphalt, and asbestos shingles now come in strips for easier application

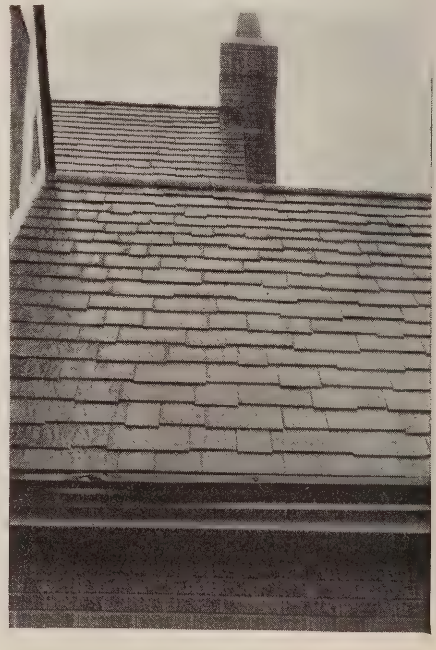
This novel and interesting effect, plus a suggestion of medieval battlement charm, is obtained with ordinary red cedar shingles

Red Cedar Shingle Bureau



Laid in random width and slightly staggered, this composition shingle gives a glossy, rain-wet appearance for a "different" effect

Ruberoid



IN SELECTING a wood shingle be sure the grain is vertical and straight, for good draining. Flat or "slash" grain shingles have a hard flint-like surface that won't absorb and hold color. A cheap stained shingle will fade and streak. A shingle long enough to allow for three laps is better than one allowing for only two, and the price difference may run only $15 to $25 on an entire house.

Going up in the price range, we come to asphalt shingles. Modern scientific processes have left little room for improvement in the better grades of this type roofing. Rag felt is used for a base, and over this is poured a layer of asphalt. The asphalt is pressed into the felt and covered with ground slate or granulated stone. Cheaper grades are made with paper base and invariably crack, curl, or fade.

ASBESTOS shingles are excellent but cost more than any of the composition group, are made of asbestos rock-fiber and either cement or asphalt compressed under hydraulic pressure. In the composition field you'll also find a wide variety of rolled or strip roofing. Altho it costs less, it isn't as durable.

Tiles are usually made of terra cotta or burnt clay, come in unglazed red or glazed in many colors. The glazed ones cost more and in extreme climates are more desirable. There are a number of metal and composition tiles, but they haven't been used long enough to judge their merits truly.

SLATE is the most costly of roofings, but the first cost is the last. Most slate roofs demand a heavier timber-framing than wood or composition roof. There's now on the market a thin slate that doesn't require the extra supporting weight.

Metal roofs of tin, copper, or zinc are used more on public buildings than on homes, altho sheet copper and copper shingles have recently come to be used more widely in the home field.

The possibilities of blending colors in a roof are unlimited. Very unusual color combinations need space in which to set them off, but soft blends of reds, browns, greens, blues, or grays are pleasing in any setting.

The ideal roof is durable, economical to maintain, a safeguard to the house, and a crowning glory to your home. Give it wise consideration. Make yours a *good* roof.

Ruberoid

This asbestos-cement shingle is suggested for Gothic effects. It is laid evenly

A sleek and smooth effect is obtained with this uniform stained wood shingle. When selecting shingles, make sure that grain is straight

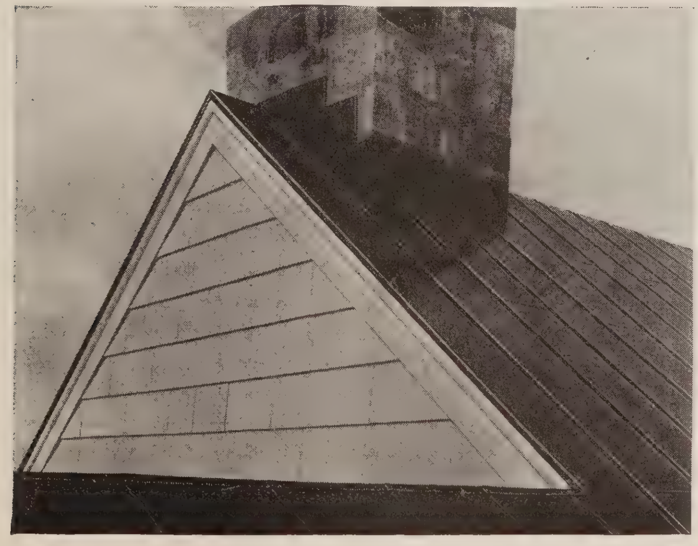
Creo-Dipt

There's wood-like texture to the economical asphalt shingles on this dormered roof

Certain-teed

Copper sheet roofing's an increasingly more popular use for an old and beautiful material that changes into a soft green color as it ages

American Brass



Tile shingles, warped and uneven, but full of blended color, have a unique Old World charm

Ludowici-Celadon

Painting

The right paint, properly applied, is a real investment; and painting should be done on written specifications

WHEN YOU PLAN A PAINT JOB

1. **See that all construction work is finished before painting.**
2. **Select a paint backed by the name and reputation of a manufacturer who stands behind his products. "Bargain" paints are largely useless fillers and water.**
3. **Engage a painter who knows his craft, and see some of his work first.**
4. **Have a written contract with your painter. It protects both you and him.**
5. **Choose a color scheme you really like. You have to live with it a long time.**
6. **Don't make your painter skimp on the number of coats.**
7. **Don't be so anxious to have work finished that you rush the painter into working in extreme temperature changes, or before surface is completely dry after rain.**
8. **Don't forget to include in the contract everything to be painted —screens, roof, outbuildings, trellises, pergolas, etc.**

THE right paint, properly put on, is a real investment. It will last and keep its appearance far longer than a job of inferior materials and workmanship; and while it's making the house an attractive place to live in and adding to resale value, it's protecting it against the ravages of time and weather.

Paint's chief job is that of effective seal against moisture, and *oxidization* (deterioration). When moisture is absorbed, besides resulting in damp interiors, nails loosen and rust and cracks appear, allowing still more moisture to seep in; sills, porch-column bases and siding will begin to rot from bacterial action. When properly painted, oxidization takes place in the paint rather than the wood, and moisture doesn't get in.

PAINTING should be done on written specifications to cover in detail what is to be done, how it is to be done, what materials are to be used, how much the work is to cost, when it is to be paid for. That's important.

Employ an established contracting-painter; use the best paint possible. Here are some reasons why: Painting involves many variable factors that affect the finished result and life of a paint job. Humidity, time of year, and amount of sunlight are some of the factors. The painter will foresee the problems and understand how to cope with them. He will follow strictly the manufacturer's specifications. He will, for instance, putty all nail holes after priming; submit color samples of paint before starting work; give all eavestroughs, gutters, downspouts, flashings, and other metal surfaces except copper a priming coat of rust-resistant paint followed by two regular coats; know to give two coats of approved stain to exterior timberwork, etc.

Understanding the kind and condition of surface to be painted is necessary. Brick and stucco present a particular problem; and wood may be high or low in absorption. A good workman will adapt his paint to the kind of wood, using more oil on some, more turpentine on others, so that the priming coat penetrates the fibers.

EVEN the best paint may last only about half the time it should if applied by someone who doesn't know his business. "Alligatoring" (splits in top coat) indicates poorly mixed paint or error in drying time. Spotting is caused by insufficient number of coats, a wrinkled surface by a coat too thick or with too much oil and not sufficiently brushed out; cracking and scaling from too hard or brittle a paint; blistering and peeling from moisture; running or sagging from too heavy a coat; too-rapid chalking from incorrect formulation or rapid temperature changes; mildew stain from fungus accumulation.

PAINT can fail because the wood is painted too soon after rain, or moisture may get behind the paint later by way of badly fitting siding over drip caps on door and window headers, or against casing of doors, windows, and corner boards. Insufficient metal flashing where porches or dormers fit into the house, or a porch whose skirting touches the ground, may let in moisture. Unless a house is dry within before painting, the sun will draw the moisture to the surface. Completed construction before painting is an absolute necessity, for if there are places where water can penetrate behind the paint, not even the best of materials can last.

MATERIALS: Good paint chalks (oxidizes) evenly as it ages. Poor paint invariably cracks and peels, and chalks unevenly. (See *page 173, article VII.*) House paints are in two general classes—hard and soft. Either can be white or pigmented. Hard paints require more frequent renewal, but usually less renewal coating is necessary, and they have advantages in appearance. Soft types are inclined to chalk more evenly, and are more likely not to crack or peel over the longer period (if of high quality).

THE conventional white-lead and linseed-oil paints and variations are in the "soft" class. Of late years, in some paints manufacturers are employing titanium or other pigments in place of all or part of the white lead or zinc oxide (the hardening element of soft paint); or "enamelizing" them by

Will you get a GOOD paint job? What kind of painter will you employ? What is to be painted besides the house? What will the contract include? Why is the right paint so important? What is the difference between a good paint job and a poor paint job? What is the difference between a soft paint and a hard paint? What colors will you paint your house?

adding to, or substituting for, linseed oil such vehicles as tung-oil resins or soybean oil. All but soybean oil tend to put these paints in the "hard" class.

For wood, oil-pigment paint is necessary. For stucco, brick, or stone, water paints may be used. If you are to know that these materials are what they should be, they must arrive sealed in their original labeled containers.

THERE are certain basic rules to follow in choosing colors; obey your individual preferences within the limits of these rules.

For cool latitudes select warm, deep colors. For hot, sunny regions, cool colors with bright accents are best.

Avoid extreme contrast or complete conformity with flanking or surrounding homes. Yours should be "different," but should "socialize" with the other houses in the neighborhood; and it should harmonize with natural surroundings. If surrounded by abundant foliage, use light color; if fairly isolated, lean to warm, rich colors.

Light colors, as a rule, make small houses appear larger; dark colors make large houses appear more compact.

Blue, green, yellow, or gray trim usually is associated with the white or ivory house, but brown shutters effectively complement a brown shingle roof. The gray house calls for green, blue, or brown accents; green calls for darker green, white, or gray; but be careful with yellow—different shades call for different complementary trim.

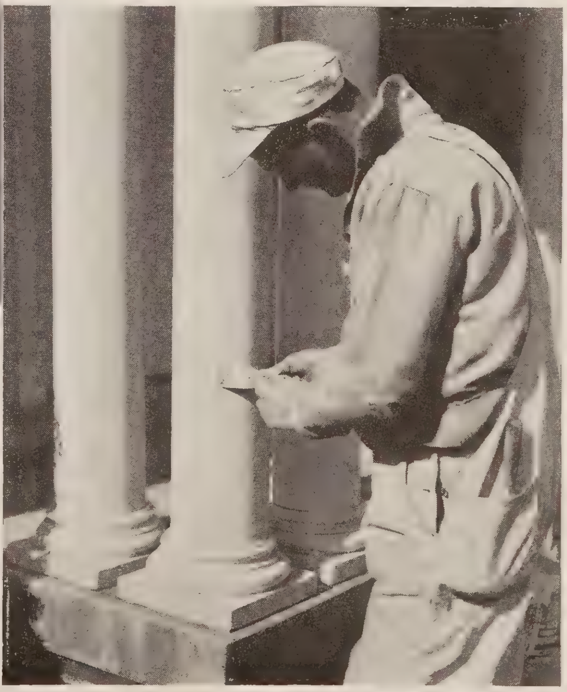
It is usually preferable that color of window frames and other details match body of the house, but with doors, shutters, and roof in deep contrast if desired.

STAINING the roof may pay, for it's the part of the house most exposed to rain, hail, snow, sun, and wind; with consequent fungus growths, decay, warping, and the rusting and loosening of nails which may allow shingles to blow off in a storm. A resulting leak may cost many times the price of a few quarts of prevention.

Remember—the work done by an expert, using quality materials, is likely to last more than *twice* as long as the cheap, unskilled job.

Make sure that you get a *good* paint job.

↑ Every surface needs some preparatory work. A careful painter sandpapers all wooden surfaces for rough spots that would show thru the finished work



Blakeslee-Lane

Filling cracks and depressions is just as important as → the quality of paint used, for no paint will cover them

Flooring

Floors are functional, but they should be decorative and personalized, too. You have a wide choice

TIME was when you put floors in a new house to walk on and for the purpose of having something to hold up the furniture. Well, maybe not quite that extreme—but floors were just floors.

Now the floors in a new house are *designed* and *appointed*. They serve utilitarian and functional purposes, but they also are decorative and enhancing factors. Because they must be, it behooves a prospective home builder to give some thought in advance to that which is going to be under his feet for a long time to come.

Floors today should harmonize with walls and draperies, with woodwork and furnishings, and in general with the whole house.

Both the room and your taste will determine the kinds of floors you'll choose, but you have, certainly, breadth enough in choice—wood, linoleum, rubber tile, cork carpet or tile, concrete, asphalt tile, magnesite, various composition tiles, quarry tiles, vitreous tiles, terrazzo, sheet rubber, marble, imitation marble, and slate. Altho linoleum, for instance, is considered as both "flooring" and "floor covering," carpets and rugs aren't—so they're omitted from this discussion.

Wood Floors: The old standby, wood, of course, is suitable almost anyplace; and you have the choice of using hardwood and leaving it "as is" or covering some or most with rugs, or of using softer wood or less expensive hardwoods and covering completely with carpet. Wood floors will always remain in favor because they're strong and serviceable, and can be so beautifully finished.

And keep in mind that your floors, as you noted on page 135, should be the last thing finished when you build.

Wood flooring may be laid in a variety of patterns. It comes usually in three forms, plank, strip, and block. Each has its variations, as with "random width" in the strip and plank varieties. We usually think of oak and maple as being the hardwoods; fir, larch, and pine as being the soft woods. But these latter, tho less hard than oak or maple, still have tough wearing qualities when of dense-edge grained stock, and exhibit attractive graining. Other soft woods which have tenacity of fiber are desirable for kitchens or elsewhere when they're to be covered with linoleum or some other covering, and they're usually found in summer cottages, storerooms, attics, closets, playrooms, and some bedrooms. Many kinds of flooring now come from the mills or thru distributors already finished; some are treated to discourage termites and decay.

How to lay and prepare new wood floors is explained briefly on page 135. Maple and pine are close-grain woods and usually don't need a filler, but oak must always be filled. Your preference will decide the next step—painting, varnishing, sealing before waxing, or waxing directly over the natural wood. By "sealing" is meant the use of a "floor seal," a mopping varnish that sinks into the pores of the wood, sealing well so that subsequent coats of wax or stain and wax, or other treatment, will have a better appearance. You can obtain seals with stains already mixed in, if you desire other than natural wood color. Clear seals will darken light-colored woods slightly, but they'll also serve to bring out the beauty of the wood.

Wood floors, unless varnished or painted, should always be kept waxed; and unless they become saturated with oil or become stained in some manner, should be scrubbed or mopped only with a "neutral" soap—such as a linseed-oil base soap. Strong tri-sodium detergents aren't recommended except for oil-soaked or badly stained wood floors.

The choice available in wood flooring is quite broad indeed. If you like a decided pattern, there are any number of block styles; or you can get a parquetry, a basket-weave design in hardwoods, in large sections for quicker laying. Block floors, incidentally, come completely finished from the factory; and these, too, are particularly suitable for laying over cement sub-floors.

For the Early American type of room, you'll want to choose planks—in either random or uniform widths—which have knots, streaks, and irregularities of color and grain. To team with more delicate styles of furniture, tho, you'll want a wood with fewer markings. Modern style homes usually call for a grade free from any irregularities. If you want a style which traces back to Elizabethan castles, choose wide oak planks.

Strip flooring, always popular, is available with grain—you may lay this diagonally to get away from the usual straight, narrow strips.

Linoleum: No longer is linoleum confined to the kitchen and bath, and no longer, too, are the linoleums for other rooms the poor imitations of patterned rugs they once were. Linoleum for the living part of the home, and especially that for bedroom and dining-room, has assumed a style of its own, and it's a colorful, distinctive style that gives you a chance to assume the prerogatives of an interior decorator.

You select your background color, then you choose ready-made insets, stripes, borders, or special figures, and arrange them to suit your fancy. Your linoleum dealer will be glad to show you all the delightful patterns and ideas possible. You can even get wall coverings to match.

Linoleum is moderate in cost, and good linoleum is very durable. Don't confuse the inexpensive product, "felt base" linoleum, with the real linoleum which has a burlap base—and generally consists of ground cork, wood flour, oxidized linseed oil, and various gums, specially processed and pressed on the burlap base.

Linoleum comes in tile as well as in rolls and as rugs. Altho the best linoleum has now been made quite easy to lay, it is suggested that you have yours laid only by competent linoleum layers to insure longevity and greatest decorative value. It should never be laid over a rough or uneven floor.

Incidentally, you should have your dealer show you the difference between printed linoleum and inlaid. The latter is a better product, usually, and besides having hand-worked patterns, the patterns are compressed into the product clear to the base; while printed linoleum, on the other hand, is produced by printing the pattern on the surface. "Battleship" is another common kind of linoleum most used, and it comes in solid colors. Much plain and battleship linoleum is now being used in homes where individual figures, patterns, and stripes are to be inserted.

Good quality linoleum is water- and stain-proof, and easy to clean, under proper conditions; but even tho it comes with a protective coating good for several months, it should be waxed and maintained with wax for best results—and because it's necessary that the linseed oil remain in it if its life is to be long and if it is to remain resilient, linoleum should be scrubbed and mopped only infrequently, and then no strong soap powders nor detergents (tri-sodium) should

↑

Altho this is composition tile, similar patterns are available in rubber, cork, and several other tiles

The pegs in this random-width oak plank floor are only for Early American decorative purposes. Floor is fastened down otherwise ➡

E. L. Bruce

↑

Wood block can be laid in many attractive patterns. It comes from the factory already finished and ready to lay

be used, for repeated water and strong cleaner applications tend to "dry it out" and later result in cracking. Use water sparingly. When necessary to give it a more thoro cleaning than is possible with light mopping or dust mopping, a neutral soap (linseed oil base) is recommended. Or, another good maintenance plan is to add liquid wax to the cleaning water—always polishing afterward. Possibly you will receive instructions for care along with your linoleum. But regardless—never varnish linoleum. And use lacquer only when the manufacturer recommends it.

Rubber and Cork Floors: Rubber and cork floors are popular, particularly for bathrooms, studies, and nurseries. You should obtain special instructions from the manufacturer of your rubber or cork floor as to maintenance and care; but on the whole, cork is maintained much as linoleum, and rubber also should be kept waxed. However, most rubber floors do not "take to" paste waxes which may contain oil-like thinners (oil and grease, as well as heat, are enemies of rubber—and this is a good tip not to use rubber floors in rooms where there are high temperatures or where there is danger of grease being spilled). The usual liquid wax, which has a water base, is quite satisfactory; and the modern rubber floor, nicely waxed, is a beautiful thing. Another caution: you should clean most rubber floors only with alkaline-type cleaners such as tri-sodium detergents, bicarbonate of soda, or the like —not with oil soaps. But get instructions from the manufacturer.

Tile Floors: Tile has also crept out of its old hangout, the bathroom, into the kitchen and into laundries, entrance halls, playrooms, and terraces. Color and variety are now much in evidence. Some tile for homes is quarried, but most is of the ceramic or vitreous variety—meaning fired clay-and-mineral mixtures. Most tiles are water- and stain-proof, are sanitary and easily cleaned, and quite durable. But they shouldn't be cleaned with abrasive cleaners. Keep in mind that some soap powders and cleansers contain coarse abrasives. (Like the cleansers for your sink and bathroom fixtures, you should try them out between two pieces of glass before using. If the cleanser leaves scratches on the glass, don't use it.) Some quarry tile is porous, and should be sealed after installing; and because some tiles are laid in cement mortar, these shouldn't have alkaline cleaners or soaps used on them—such cleaning only causes the already-alkaline mortar to "bloom," or dust, and perhaps eventually causes the tiles to loosen.

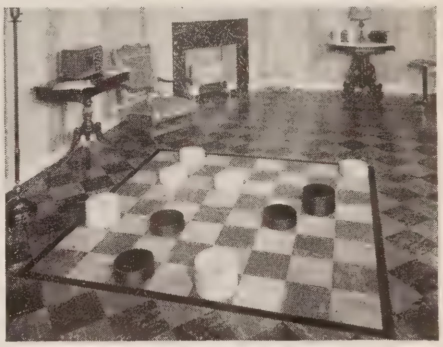
Composition Flooring: Asphalt and composition tiles of various kinds are popular for basement floors, for laundries, and for entrance and porch floors. Slate is occasionally used in these locations and on terraces, as are also terrazzo and marble; but the last two are ordinarily too expensive for extensive use in the modest home. Magnesite is a "plastic mix" containing mineral fillers, and resembles cement slightly in appearance after being laid wet, troweled smooth, and dried to a hard finish. You can have it in any number of colors. (A very similar coating was used on the exterior of world's fair buildings.)

Magnesite floors should be "sealed" to maintain color and prevent blooming, and ordinarily they are waxed.

Many of the asphalt tile and other composition tile floors are available in colorful patterns. Asphalt tile, particularly, makes an attractive and satisfactory floor for the recreation room. It also is a dignified, popular floor for the entrance hall. Keep in mind, tho, that it's quite important it be finished and "treated" properly for the first six months. Ask your dealer. Essentially made of some mineral rubber, some petroleum products and solvents may injure it; so it is a good idea to make sure the cleaners and waxes you use on it have no injurious thinners in them, even tho a few brands of asphalt tile are not visibly affected.

Terrazzo consists of innumerable small marble chips set in concrete and ground down to a hard, polished surface. Because the binder *is* concrete, alkaline soap powders and cleansers should not be used on it—they'll hasten the blooming, and eventually the loosening of the little chips.

Concrete Floors: Last in the discussion comes concrete, now also colorful. The color can be put in the concrete or painted or stained on. Some new homes have concrete floors thruout—used "straight" in some rooms, as sub-floors in others. If waterproofing (see page 136) is employed in building, and concrete is properly applied, it makes an excellent basement, porch, laundry, or playroom floor; but it should also be neutralized and "treated" for best success if it is to be painted or finished with wax. If it isn't neutralized (and waterproofed), neither paint nor wax will "stick" permanently. Any limestone product tends to bloom, and waxing or painting will keep down the dust as well as improve appearance. New concrete floors should always be sealed after neutralizing, altho it's seldom done. Some of the better cement paints serve as a seal; but if the floor is to be waxed, a mopping varnish can be used, followed by a wax polished down well. Afterward, maintain with a neutral soap mopping, but not with alkaline cleaners; and always rewax unless the floor is painted. Ask dealers about concrete paints.


Johns-Manville

Play checkers on your basement playroom floor? This encouragement to an old favorite pastime was set in an asphalt tile floor. Any number of patterns and colors is possible in asphalt tile and other composition flooring

Felt base linoleum covers the floor in this girl's bedroom and is very easily cleaned ↓

Pabco

Congoleum-Nairn

↑ **This well-groomed bathroom floor is a good example of the modern trend in individual styling for linoleum on both floor and walls**

The specially inset figures give just the right amount of color accent to this attractive linoleum kitchen floor →

Pabco

Armstrong Cork

← **Here a marbelle pattern linoleum has been accented and given individual treatment for stair hall by means of the inset star**

Unusual as it seems, this is a concrete floor in Wesley Ruggles's home. The colored topping was cut into squares with a carborundum wheel and the grooves were filled with mortar →

Portland Cement

Wiring and Lighting

One of the most important considerations in home-building. It's cheaper to do it *right* in the beginning

WILL the electrical system of your new home be adequate ten years from now?

During the past twenty-five years the use of electricity in the homes of America has increased tenfold. There's every reason to suppose this rate will continue, if not increase.

Our scientists learned long ago that electricity travels along a conducting wire much as water moves thru a pipe. The larger the pipe, the greater the water-carrying capacity; the thinner the wire, the less current.

If your electrical wiring is too small or circuit too long, the electrical force is going to be only a part of what it should be at any outlet, and you will pay for it—you will pay for the privilege of receiving inferior electrical performance! Your toaster will take longer to heat, lamps will give less illumination, et cetera; but you pay for full power at your meter whether you use it or not!

And on the health and bodily-efficiency side, scientists have found that poor lighting costs more in impaired eyesight and inefficiency than adequate lighting.

SO WHEN you buy or build, avoid both by good wiring and lighting. If you buy a home, ask questions and insist on seeing wiring diagrams and specifications used in the building's construction. Besides all the essentials mentioned following, check size of the service conductor (wire which goes thru meter and fuse box and feeds branch circuits). Less than 5-room houses should have a No. 6- or No. 4-gauge wire size; 5- to 9-room houses, No. 4-gauge; 10 or more rooms, No. 2 (the lower the gauge number, the larger the wire).

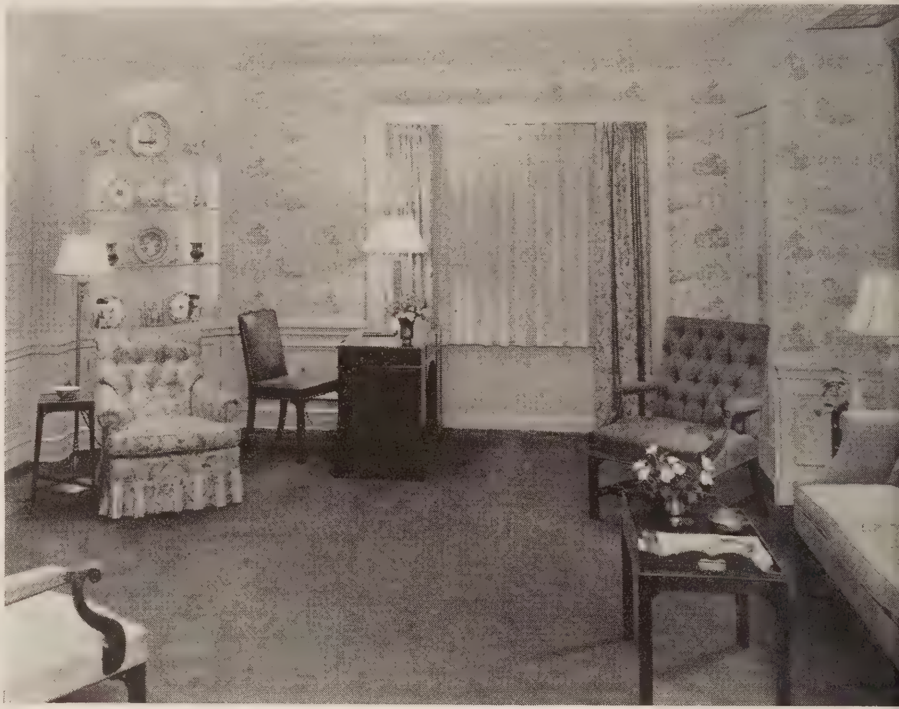
When you talk to your architect about wiring a *new* home, think of adequacy first, economy second. It will save you a good deal of money later on. Let the following guide you:

1. Wire and Circuits. Install wires and cable that resist mechanical injury. (See page 174, Article VIII.) Size must be large enough to avoid overheating and assure each outlet's receiving amount of current required now and in the future. There should be a number of small, individual circuits rather than one large (long) one. Allow at least one circuit for each 500 square feet of space. Ideally, all rooms should be served by at least 2 circuits to prevent complete interruption of service should one be short-circuited.

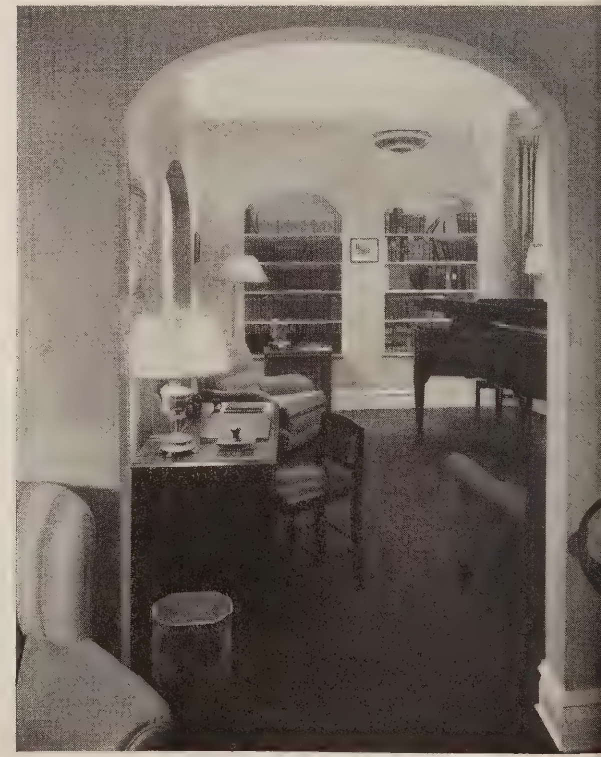
Convenience outlets to connect kitchen, laundry, and table-cookery appliances should never be on the same circuits which serve fixed lights or portable lamps, but should be supplied by separate appliance circuits of wire not smaller than No. 12. *Individual circuits*, of No. 12 wire or larger, should supply power to oil burner, water pump, stoker, air conditioner, refrigerator; No. 10 wire is needed for the water heater, No. 6 for the range.

Regardless of whether you use circuit breakers or fuses, individual units, each with its own fuse box or circuit breaker, should be arranged to control each floor.

2. Outlets and Switches. *Convenience* is the guide word! It's better to have too many than too few outlets and switches. Twin and triple convenience outlets are better than single ones. No point along the floor line should be more than 6 feet from a convenience outlet. Those for special appliances should be placed *nearest to the point of use.* Convenience outlets in living-rooms and bedrooms should not be placed where they will fall behind heavy pieces of furniture; should be located at heights above the floor most easily reached, depending upon appliance or fixture in question. For instance, outlets for vacuum cleaners and floor lamps can be in the baseboard or a few inches



↑
Lighting in this room is near ideal—plenty of it, but soft and diffused, and also increasing the room's decorative values. Most units are indirect; all are non-glare. Desk lamp is IES design



Good lighting arrangement brings out the charm and personality of a room at the same time it provides correct illumination. But intelligent lighting must depend upon correct and adequate wiring. See the Guide at the right above; for table lamps, etc., 3, 4, or 5 feet above floor; outlets for mantel lamps, flush in mantel shelf; for kitchen appliances, above counter level; bathroom appliances, 2 feet up, 5 feet up, etc.

There are convenience outlets of various special types—with hooks for hanging wall clocks, with pilot light and switch control for electric irons and other appliances, with built-in ground and aerial connections for radio; outlets for signal buzzers and burglar alarms; and there are built-in sockets and jacks for extension and portable telephones with portable plugs (which forward-looking builders will install for possible future use even if not needed immediately.) Also there are heavy-duty outlets for ranges and other appliances of high wattage, and weatherproof outlets for exterior use. (Outlets for permanent fixtures should be located, of course, immediately at point you plan to locate such fixtures.)

It shouldn't be necessary to take one step into a dark room, hallway, or stairway to switch on or turn off the light. When commonly used doorways in the same room are more than 10 feet apart, the chief source of illumination should be controlled by a switch on the latch side of each doorway.

In halls, one lighting unit is required for each 15 feet of length—controlled so that lights can be switched on ahead or turned off behind at common points of entrance.

Grouping several convenience outlets under control of a single switch will save round trips to turn on or off several units commonly used at the same time. Each stairway needs a light at both head and foot, controlled separately by switches on each level. The attic light should be controlled from the foot of the stairs and the basement light from the top. Pilot lights are useful at these points.

In addition to master switch at meter, there should be a second master switch in the master bedroom, controlling exterior lighting and important lighting units in halls and in first-floor rooms—so wired that it renders other controls useless when it's employed for emergency lighting.

For all conventional switches but the master (which is usually the knife type), tumbler type is preferred. You can procure switches with pilot lights to indicate when current is on.

3. Lighting and Fixtures. Too much light is a rarity. Provide for plenty! There should be a ceiling fixture or other general lighting in every room in addition to decorative, occasional, and incidental lighting fixtures elsewhere needed or desired. All should be *non-glare;* as many as possible, *indirect* or semi-direct. (One ceiling fixture for each room is sufficient if room does not exceed 300 square feet, or the length is not more than 1½ times the width. Bracket lights on side walls should be about 5′ 6″ above floor.) Lighted trough-like coves, panels, or "boxes" for indirect glow are both decorative and practicable.

The recently developed louvered night lights—useful in nursery, bedrooms, halls, and stairways—may appeal to you. Surely wide selection of correct-illumination fixtures is available—for every type of installation.

And remember—a bare lamp (bulb) always means *some* glare. It's well to buy fixtures scientifically designed to shade or cover lamps or to diffuse direct rays.

Wiring and Lighting Guide

Here is a check list for your consideration in wiring the new home. The well-wired, well-lighted home approximates this.

EXTERIOR

Push buttons to operate buzzer, bells, or chimes
Light at doors and on porches
Illumination of steps, walks, and house number
C-outlets* on terraces and for garden light
C-outlet* for Christmas tree and other decorative exterior lighting
Switch control in hall for all exterior outlets

ENTRANCE AND STAIR HALL

Ceiling outlets for illumination, switch control at head and foot of stairs
Side-wall bracket light-fixture outlets, switch or fixture control
C-outlets* for table lamps
C-outlets* for vacuum cleaner

LIVING-ROOM

Ceiling outlet for general illumination, switch control
Side-wall bracket lights, switch or fixture control
C-outlets* for table, piano, and floor lamps; vacuum cleaner
C-outlet* above mantel for portable lamps
Floor outlets for portable lamps on free tables
Radio outlet; telephone outlet
Push button to annunciator in kitchen
Air-conditioning controls
Outlet for unit air conditioner

DINING-ROOM

Ceiling outlet over dining table, switch control
Side-wall bracket lights at buffet, switch or fixture control
C-outlets* for buffet lamps, table-cookery appliances, vacuum cleaner
Floor outlet under dining table for coffee maker, waffle iron, toaster, etc.
Push button on or under table connected to buzzer in kitchen
Radio outlet; unit air-conditioning outlet

KITCHEN

Ceiling outlet for general illumination; switch
Ceiling or side-wall outlets for lights at sink, range, work table, above counters and under cupboards
C-outlet* for refrigerator, electric garbage-disposal unit, dishwasher; separate circuits
C-outlets* above counters and work table for food mixer, grille, roaster, toaster, coffee maker, coffee grinder, waffle iron
Under-counter or sink-cabinet outlets for towel drier, plate warmer, etc.
C-outlet* for flat iron, switch and pilot light
C-outlet* near floor for vacuum cleaner
Clock outlet 7 feet above floor
Outlet for exhaust fan, switch control
Electric range outlet, special circuit
Electric hot-water heater outlet, special circuit
Radio outlet
(Precaution: Metal work tops used on counters should be grounded to a water pipe by wire soldered to underside of counter top)

LAUNDRY

Ceiling outlet for general illumination; switch
Outlet for illumination over laundry trays, washing machine and ironer, fixture control
Ceiling outlet with drop cord, 3 feet in front of laundry trays, 5′6″ above floor, for attachment of washer; separate circuit
C-outlet* for clothes drier; same for flat iron or electric ironer, with pilot light and switch control, located 3 or 4 feet above floor
Outlet for exhaust fan

BEDROOMS

Ceiling outlet for general illumination; switch
Side-wall bracket light-fixture outlets at dresser, switch or fixture control
C-outlets* for lamps on vanity, tables, dresser, bed, reading lamp near lounging chair
Provision for night lights in baseboard
C-outlets* for vacuum cleaner, heating pad and sewing machine
Radio outlet; telephone outlet
Outlet for built-in heater, separate circuit

RECREATION ROOM

Ceiling outlet for general illumination; switch
Ceiling outlet for game-table illumination, switch or fixture control
C-outlets* for table and floor lamps, vacuum cleaner, electric toys
Floor outlet for free-standing table lamp
Electric wall-clock outlet 7 feet above floor
Radio outlet; outlet for exhaust fan
Outlet for built-in electric heater
Power outlets for motors

BASEMENT

Ceiling outlets for general illumination, one or more switches
C-outlets* 3 or 4 feet above floor for vacuum cleaner, small electric tools, extension cord emergency light
Heavy-duty outlets for air-conditioning equipment; oil burner, coal stoker; water-supply or other pump
Heavy-duty outlet for hot-water heater, separate circuit (can be arranged to operate on electric range circuit)

BATHROOMS

Ceiling outlet for general illumination; switch
Wall outlet for mirror illumination, switch or fixture control
Shower stall ceiling outlet, vaporproof fixture, switch control outside shower stall door
C-outlet* above and to right of lavatory for electric curling iron, razor, or small heater
Heavy-duty outlet for sun lamp, separate circuit, switch control remote from tub
Heavy-duty outlet, built-in electric heater, switch control remote from tub

GARAGE

Ceiling outlets for general illumination; switch
Wall outlet outside garage doors for driveway illumination
C-outlets* 4 feet above floor for extension light cord and electric tools
Heavy-duty outlet for motor-operated equipment
Outlet for door motor, switch control
Outlets for battery charger; exhaust fan

ATTIC

Ceiling outlets for general illumination, switch control or fixture control as required
C-outlet* for vacuum cleaner, extension cord for emergency light, electric toys, sewing machine
Outlet for exhaust fan, switch or time-switch control

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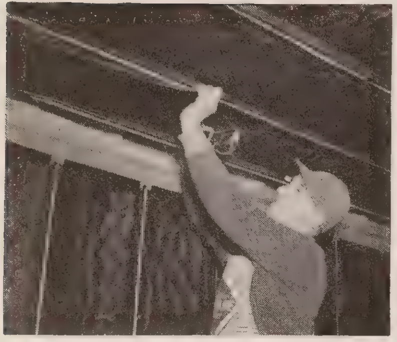
*Convenience outlets

+ +

Power Required

Mazda lamps: 3 watts to 1,500 watts (average room lighting—100 to 1,000 watts)
Hot plate: 2,000 watts
Radio: 50 to 150 watts
Electric razor: 9 watts
Vacuum cleaner: 250 to 900 watts
Electric clock: 1 watt
Iron: 400 to 1,000 watts
Percolator: 400 watts
Electric range: 200 to 900 watts per burner (Provide circuit of 8,500 watts capacity)
Toaster: 450 to 1,100 watts
Heater: 600 to 1,000 watts (for bathroom air-heater, provide circuit of 2,500 watts capacity)
Beater: 90 watts
Ironer: 1,100 watts

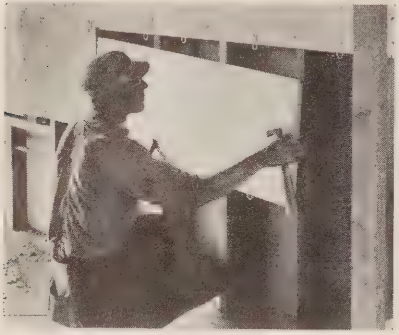
Even if you can't imagine yourself ever installing all the thousand and one available electrical gadgets, there still remains the possibility that you may some day change your mind—or the family may change it for you! It costs very little to provide for every electrical event while your home is under construction, but much more to add things later on. Besides, if you should ever decide to sell, it won't hurt your asking price any if your house supplies complete electrical service—at the flick of a switch!


Wood Conversion Co.

Types of "wool" insulation come wrapped in long, narrow blankets of moisture-retarding building paper. See the simple application in the picture below

Eagle Picher Sales Co.

Bats or blankets of wrapped insulating wool fit snugly between studs, joists, or rafters, and are nailed or tacked in place easily as shown in the illustration above


Insulite

Easy to install, this type of board insulation may serve as plaster base—others as sheathing or final interior finish

Kimberly-Clark Corp.

Unusual is this crepe-like wood fiber, quilt-type insulation that stretches to fit the space tightly. It's light and convenient to handle and easy to install

Johns-Manville Corporation

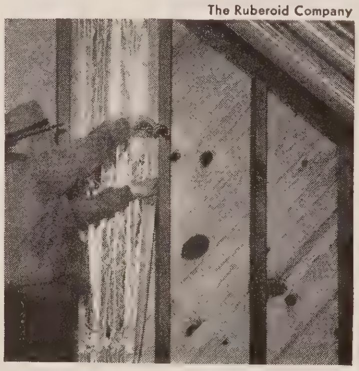
Bulk insulation may be poured or blown into attic floor as shown, or into open spaces in walls and ceilings as barrier to heat passage

The Celotex Corporation

An insulation that serves as siding consists of one layer of cane-fiber insulation board between two layers of asbestos, a two-purpose economy

Fir-Tex Insulating

This insulation board, similarly to that at left, serves both as heat-current stopper and as plaster base


The Ruberoid Company

An accordion-like metal foil insulation material is fairly new. It insulates by reflecting heat back into the home, and is moisture-repellent

Insulating

THE total heat requirements of the home, which your plant must huff and puff to compensate, are figured by (1) the amount of heat which escapes thru the glass in windows and doors, (2) the amount required to warm infiltering cold air—getting in thru cracks and around windows and doors, and (3) the amount lost thru walls, ceilings, and floors.

Obviously, if no heat got out and no cold air got in, you'd have to fire your heating plant but once all winter.

That's where insulation comes in. It helps you meet those factors better. By helping prevent escape of heat, and stopping infiltration of cold air, you save gobs of fuel, add gloriously to comfortable living.

Weather stripping blocks most infiltration of cold air. Double-glazing and storm sash cut down the heat loss thru window glass. But the greatest escape of heat is *right thru the walls and ceilings* of a house.

Heat's a Rolling Stone. To understand the "why" of insulation, we must understand heat and its traits. Heat has a yen to travel and always moves in the direction of lower temperature—toward colder objects and spaces. Heat travels in three ways—by *radiation* (travel independent of air currents), by *conduction* (transfer of heat from one object or one molecule of matter to another), and by *convection* (out- and upward-traveling heated air). To keep heat within a house we've got to stop, as completely as possible, all three means of transit.

Barriers. The most effective bulwarks yet found are dead-air spaces, shiny metal surfaces, and materials that are poor conductors of heat (but these last stop heat only from being *conducted* away). For halting heat passing thru walls and ceilings, insulating materials fall into three general classifications—the bulk or wool, the metal foil, and the board.

Bulk Insulation. This may be of pulverized rock, pulverized wood, mica cork, glass, gypsum, or other basic materials, and is always of *cellular* make-up. It contains millions of tiny dead-air spaces to act as the barrier to the run-out of warmth—and, in addition, many of the materials are also, in themselves, slow- or non-conductors. Because the air spaces are tiny, and because the bulk fills all space between walls, convection currents to carry heat upward can't get started.

Numerous forms of good bulk insulation are on the market. You can have it in loose-fill form which is blown, packed, or poured between inner and outer wall or between joists in the ceiling. Or it can be obtained in blanket or quilt form that you tuck in place, and in bats (most of which are laid between joists or cut slightly wider than stud spacing so they wedge firmly into place in walls). A sort of long, narrow "cross" between the two is commonly wrapped in moisture-resistant building paper that nails in place between rafters, studs, or joists.

Metal Foil. Recently come into prominence, it consists of ultra-thin sheets of metal

An explanation of home insulation and the choices you have in protecting your new home from the elements

cemented to layers of kraft paper. We know that shiny surfaces reflect radiant heat just as they reflect light. Metal foil, installed within walls, ceiling, or roof, acts as a barrier to heat passage in that it reflects the heat back toward its source.

Board Insulation. Of cellular or poor-conductor form, or both in one, the board type has uses in addition to its insulating application—as plaster base, as a sheathing, or even as a final interior wall finish in place of plaster.

Fire-Resistance. So much emphasis has been placed on the fuel-saving and comfort-making attributes of insulation that its importance as a fire-resistor has been minimized. Not long ago a beautiful stone and frame house, only a year old, was destroyed by fire. Had it been insulated, it's a good guess the fire would have been confined to a minor inside blaze, easily controlled. For, if not actually fireproof, most of the popular insulating materials are fire-*resistant*. Those made of compressed wood or vegetable fibers will resist the spread of fire; materials such as glass, mineral, or slag wool will not burn at all, in the ordinary sense.

Moisture. Modern, tight, draft-free, insulated, air-conditioned homes, however, have brought a slight, but easily controlled, moisture problem.

Because most insulating materials will absorb and hold moisture, builders or remodelers will find it expedient to take the easy precautions suggested here and in the diagram on this page. Moisture reduces insulating properties.

In our modern, tight, or air-conditioned houses it's a good gamble that the air inside a house will be a source of moisture. All normal air contains a certain amount of water vapor (humidity). With winter-air-conditioning systems, where humidity is controlled, usually you'll find more moisture in the air than in non-conditioned houses.

The higher the temperature of the air, the more moisture it can hold; and from a health-comfort point of view, we *should* have greater moisture content when air is warm than when it's cool.

HOWEVER, as the temperature of air goes down, so goes its ability to hold moisture—in direct proportion to the temperature. Warm, moist air in a room, being cooled, gives up some of its vapor—and deposits it on the nearest cool surface where it condenses into water.

The point at which a certain quantity of air begins to set free its moisture is called the *dew point*. When moisture vapor passes thru a wall toward the outdoors from a warm room, if it's sufficiently cold outside, it will be cooled below the dew point and will deposit condensed moisture on the nearest cold surface. This is usually the inside of the wood-sheathing in a frame wall, or the masonry if a masonry wall.

Unprotected insulation may absorb some of this moisture, but it won't be present in alarming quantities; and upon drying, the insulation regains its usual properties.

Vapor Barrier. Nonetheless, because the method of precaution is so easy, or if there are to be high indoor humidities or low outside temperatures, it's wise to provide some sort of "vapor barrier" on the inside or *warm* wall.

In existing houses, interior plaster surfaces can be sized with aluminum or other paint, as a vapor passage resistor.

Some insulation products are provided with vapor barriers in their manufacture. Blanket types generally have moistureproof binders. Metal foil, of course, is itself a vapor barrier. Most rigid insulating sheathings are made with vapor-proof coating, and a few rigid insulating laths are made to include vapor barrier.

For other types, manufacturers may insist that after the wool is in, a vapor barrier be installed before plaster lath is applied. (See diagram in the next column.)

Backing Up the Line. A football team can't get far without good defensive backs to bolster up the line. Similarly, a good insulation job isn't perfect unless your home is equipped with weatherstripping, storm sash or double-glazing, and well-caulked windows to back up the wall and ceiling insulation defense against the elements.

Double-glazing is now as readily available as storm sash. Even casement windows can be equipped with the second pane unit, and you can buy stock casements with or without the double sash.

There are innumerable kinds of weatherstripping, and your building-materials dealers can explain the advantages of each.

It's a lot cheaper to provide for double-glazing and weatherstripping when you build the house than "later on when cold weather comes"; so this is a matter which should be discussed with dealers and your architect or contractor at the time you're making your plans.

Buying Insulation. The best advice that can be given you about buying insulation is to select a reliable dealer who handles the product of a well-known manufacturer.

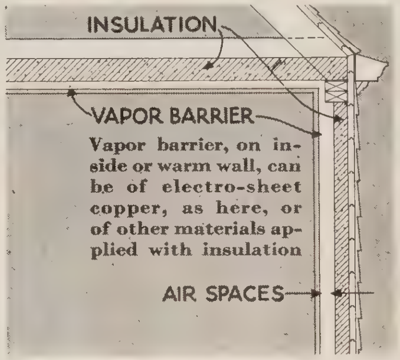
Merely applying a layer of building paper to the wall-sheathing before clapboard or stucco is applied is *not* insulation. Neither is common wallboard—even tho it does offer some resistance to heat passage.

If you're buying a home, insist that someone who knows explain how thick the insulation is, what it's composed of, and whether or not it includes the entire exterior wall area and roof. Double-check when buying, for jerry-builders have a quaint habit of using a nationally known product but applying it to only a limited portion of the building to advertise "this house is insulated with such-and-such."

A Good Rule. When you're building and insulating your own house, particularly if fill insulation is used, employ a contractor who specializes in this work. When board types of insulation are used, this precaution isn't necessary, but an architect should review the plans to see that sufficient insulation has been specified. But whatever you do—insulate! Make war on the weather.

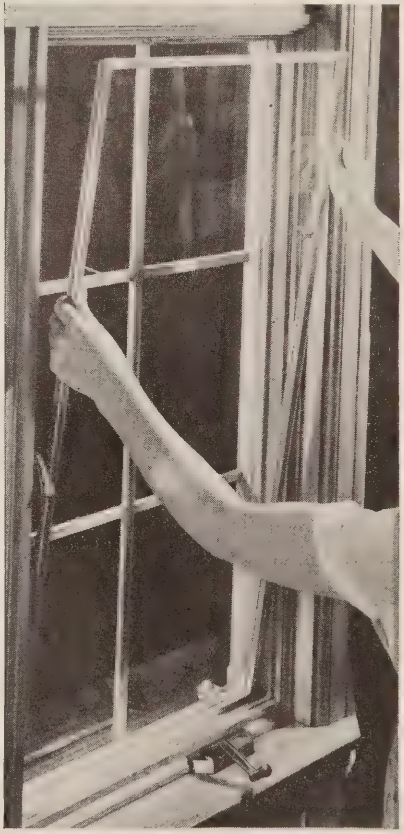
General Insulating & Mfg. Co.

A house already standing can be insulated. It's not at all a difficult job to blow in the woolly loose-fill insulation



Vapor barrier, on inside or warm wall, can be of electro-sheet copper, as here, or of other materials applied with insulation

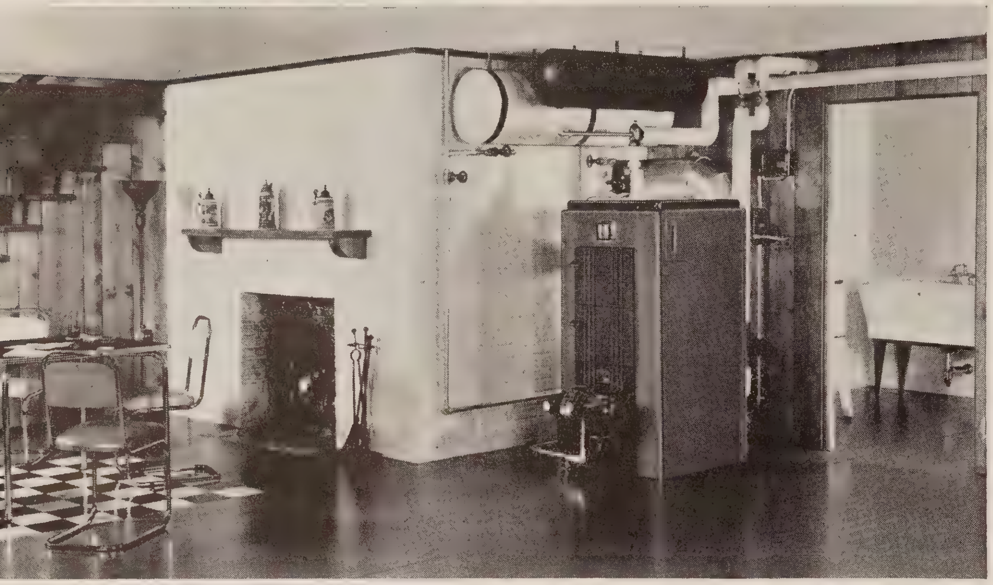
Andersen Frame Corp.



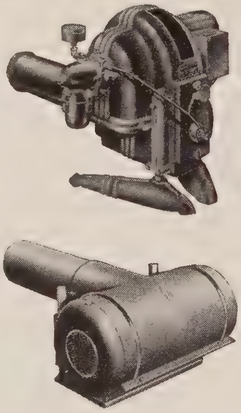
For casement windows, double-glazing sash is fitted directly to the casement. The dead-air space between the sash tends to stymie heat passage and also to lessen the condensation of moisture on the inside. Storm sash and double-glazing sash are available at dealers for practically all types of windows and doors

Air Conditioning

Heating . . . . Winter Air Conditioning . . . . Cooling . . . .



Ten years ago a basement like this was a rarity, but now you'll find them on every boulevard. Today's modern automatic heat has made them possible. The heater shown is an oil-burning boiler system



Two modern, streamlined oil burners of the gun type. Most atomizing oil burners are adaptable either as conversion burner or integral burner and can be used with either warm-air or boiler-radiator plants. Stokers and gas burners are discussed on following pages

IN CONSIDERING air conditioning for your new home, you should keep in mind four cautions. First, that it must be *fitted* to your house much as a tailor fits a suit, for seldom can two houses be air-conditioned in exactly the same manner.

Second, because the long-period success of air-conditioned living depends upon the proficiency and exactitude with which installation is made, you should consult a competent engineer-contractor. Third, you shouldn't object to a small extra charge for "engineering" asked by a reputable firm—which means that not only will the firm see that the system is installed properly but will, for a period afterwards, "engineer" it until all adjustments are correct and operation perfect. And fourth, keep in mind the bedfellow to successful air conditioning is *insulation*. (See page 148.)

You're in possession of air conditioning when a condition of fresh, clean air at proper temperature and humidity for comfort and health is effected within your home. In winter you must have equipment that *filters*, *heats*, *humidifies*, and *ventilates* because winter air is cold and dry. Fall and spring, quite likely heating and humidifying will be unnecessary for the greater part. In summer, you must ventilate, filter, cool, and *de*humidify because summer air is warm and moist.

The year-round ideal is 72 degrees with a 40 to 50 percent relative humidity. But seldom is it possible to reach this ideal—principally because of window "fogging." (See table page 154.)

Filters doubtless will be integral parts of the air-conditioning unit. They are either mesh-adhesive propositions (fiber glass, steel wool, steel mesh, or paper) or cloth, in a frame; and you can have either the permanent, cleanable variety or the less expensive, replaceable ones.

Humidification is by evaporating pan or spray humidifiers operating centrally in connection with heating and conditioning unit; by means of a humidifying-radiator installed on the first floor or by a new type of unit that fits flush into floor and wall and combines steam or hot-water radiation with humidifying. Moisture is supplied automatically as it is needed. Control of central humidification is by a *humidistat*.

Ventilating embraces both distributing the conditioned air and freshening and circulating it; and equipment includes an electric motor-operated blower unit—a multi-vane, centrifugal fan, sometimes called a "squirrel-cage," cabineted and connected to furnace or conditioning unit—and a system of supply and return ducts from central plant to rooms; with grilles or registers. The modern tendency is to locate grilles for supply ducts in the wall rather than floor in order to effect better air-distribution. Ducts in the new home will be the modern directional, rectangular type built into the walls and ceilings out of sight, or fitted against them compactly and inconspicuously.

Fresh air, except in extreme weather, can be introduced thru a small duct from the outside to the air-distributing system (an aperture no larger than a half dollar is sufficient for average cold weather, with damper for full opening in mild weather or for summer cooling), altho medical authorities hold that proper heat and humidity are more important to winter health than the carbon dioxide content of the air. Less fresh air is necessary when room air is kept in motion; and if the home is not storm-sashed and weatherstripped, no fresh-air duct is likely to be needed.

Heating: Since heating is 90 percent of winter air conditioning, most serious consideration must be given to the heating plant. But first, the choices for those who want heating *only* at this time. . . .

The initial decision, as in air conditioning, is whether we want direct warm-air (gravity distribution) or boiler-radiator heat.

The type of fuel to use will depend upon your own individual preferences for coal, coke, oil, or gas, and the geographical location of your home—nearness to fuel supply with consequent cost, and the future supply.

G*RAVITY warm-air* furnaces are of all-steel, cast iron, or a combination of the two. The bonnet should be as high as possible. Any of the conventional fuels may be used, but furnace should be of a design suited to that fuel. It will behoove the new builder, however, to install a *forced* air (blower-filter) unit, not only because of greater heat efficiency and cleanliness, but also because ducts can be smaller and inconspicuous, and be perfectly suited to complete air-conditioning use later. Cost is very little more.

For *boiler-radiator* heat you have a choice of hot-water or steam (pressure, vapor, or vacuum) systems; with your favorite fuel. Boilers may be of either cast iron or steel. Cast iron boilers come in sections which are assembled in a number sufficient to make a unit of capacity required for the particular home. When damaged or worn, only specific sections need be replaced. Steel boilers are welded into practically one piece, are lighter, and generally take up less space.

All steam boilers should be equipped with safety valve, water column and gauge glass, pressure gauge, gauge valves and petcocks, and (if coal-fired) damper regulator.

Radiators are of two general kinds, *direct* and *convector*. Direct radiators are made up of several cast iron sections—to size required for the situation, are of various heights and shapes, and heat by both radiation (infra-red rays) and convection (heated air motion) principles. The modern trend in new home building is toward convectors which transmit heat principally by convection currents, are often more efficient, better looking, make room cleaning easier, and can be installed either flush in walls or detached in "cabinets" of pleasing design. Heating elements are usually fins or coils of cast iron, steel or copper alloys. Radiator system should be equipped with protective valves or traps, as is required by the particular system installed.

Steam systems can be either single-pipe or two-pipe (one pipe for delivery of steam to radiators; another for return of condensed steam to boiler). The former are simple in design and low in cost; the latter more flexible and a bit more efficient. Steam systems compare favorably in operation cost with any other type of heating. Single-pipe systems should be equipped with adjustable air or vacuum valves for positive heat control of radiators near or far from boiler.

Hot-water systems are of two kinds, *gravity circulation* and *forced circulation.* Natural laws control flow in the first. Forced circulation (by small pump; electric) is preferred because of greater efficiency and economy, more positive and uniform heating. *Expansion tank,* thermometer, and pressure gauge are necessary to the system. Hot-water systems are flexible, very economical in operation and maintenance, and easily controlled; but radiators sometimes are necessarily larger and there is slightly more piping than with steam. However, recently introduced is a type of hot water system employing *single piping,* which means lower costs.

Automatic Heat: The success of air conditioning depends to a great extent upon automatic control and automatic firing; or heating alone is more satisfactory if automatic.

A variety of dependable coal *stokers* is available. They burn smaller and cheaper sizes of coal; and thru more scientific firing and better control of combustion, further savings are effected. They provide automatic banking when not in operation, lessening room air stratification. There are two types —*hopper* and *bin.* The former consists of a hopper with space for about 15 hours coal supply, fan for properly apportioned draft, screw conveyor extending from hopper to firebox, and a small motor for power. Ashes sift over sides of burner head. Bin-type stokers are almost identical with the exception that a screw conveyor runs directly from coal bin to firebox. In most cases the bin-type is preferred by new home builders. Stokers can be installed on any unimpeded side of the heater.

O*IL Burners* are of vaporizing or atomizing types, depending upon how oil is broken up into tiny vapor particles for combustion. Vaporizing burners pre-mix air and oil by means of pot or retort and deliver it to combustion chamber by means of blower and control valves. Atomizing burners are divided into *gun* and *rotary* types; the former shooting the atomized oil vapor *into* the firebox, usually from outside, while the latter is customarily installed inside the boiler base and employs a revolving disc for atomizing. Burners are also classed as *conversion* or *integral.* For example, you can buy boiler or furnace separately and install conversion burner, or you can buy the heater with burner as integral part of the unit.

Gas Burners are of conversion or integral-with-heater (recommended for new builders) types, the burner unit consisting of a casting supporting a radiant, usually of china clay, the purpose of which is to radiate heat to sides of firebox; mixer chamber; adjustable gas orifice and air shutters; and automatic pilot to prevent ignition unless pilot is burning properly.

For most efficient and safe heating, the chimney should be absolutely smoke-tight thruout length, should extend more than 3 feet above roof, and preferably should be lined with fireclay lining not less than ¾ of an inch thick.

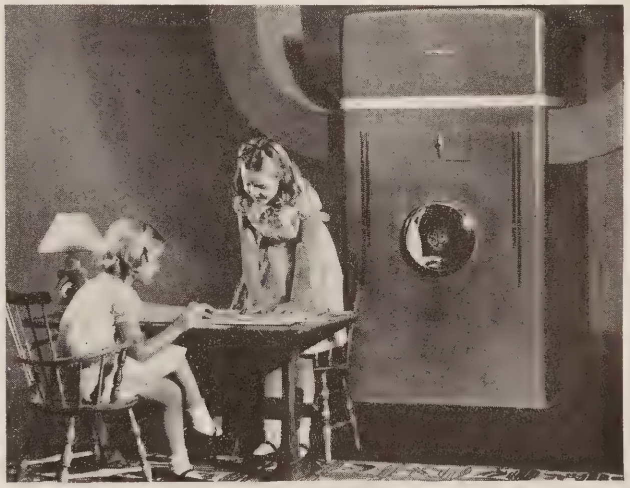
FIVE general methods of winter air conditioning are open to the new home builder: (1) *direct warm air,* (2) *indirect warm air,* (3) *indirect-unit,* (4) *split system,* and (5) a *double system,* called variously "radiator-heat," "auxiliary" or "secondary" system.

1. *Direct warm air.* Equipment: furnace; humidifier blower-filter unit; system of supply and return ducts, direct or zoned; and necessary automatic controls. Furnace and unit, since air is fan-forced and ducts take up no headroom, can be located in a basement corner, making way for a recreation room, or on the first floor. Complete prefabricated duct systems at unit prices are available.

Operation cycle: thermostat starts heater operation; when bonnet temperature reaches a set point, furnacestat starts blower; air is drawn thru filters; warmed and humidified as it is forced thru furnace passages and bonnet on way to rooms; returns by ducts to blower-filter unit.

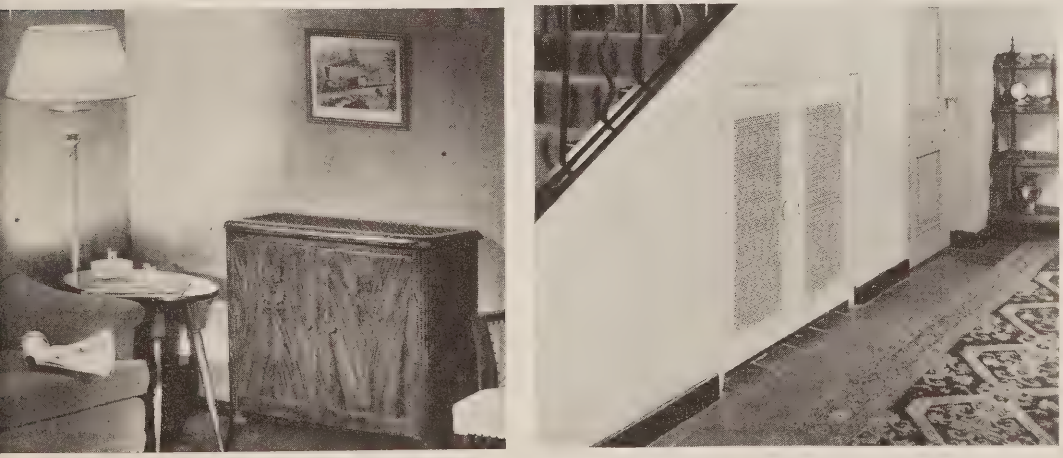
Advantages of warm-air method: simplicity; economy. Disadvantages: inelasticity—kitchen and bathroom present difficulties; and tendency of air to stratify. (With automatic firing, *unless there are counteracting provisions,* when blower stops warm air hangs in the top and cold air at the bottom of room area;

[*Turn to next page*

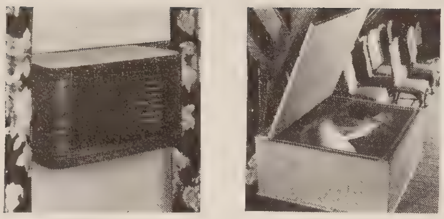


← **This sleek-jacketed modern warm-air furnace with integral oil burner, automatically controlled, is clean enough to live with the family**

A typical automatic direct warm-air conditioning unit combination. Not even a first cousin in appearance to the homely heating plant of yesterday's basement ↓



The humidifying radiator is used with boiler-radiator heating system where there is no central humidifier or duct system, and one unit ordinarily will supply sufficient moisture for all rooms of the home. At left, in its decorative cabinet, it fits in nicely as a member of the home furnishings. At right, the humidifying radiator is installed under the stairs (behind screened doors) out of the way. Vapor pressure causes the moisture to circulate thru the home



Left, above: Individual room coolers have been with us for many years, but it wasn't until recently that scientific advancement made it possible to "package" the conditioner compactly enough that it would be suitable for window installation. This unit is one of several recently introduced, low-cost room units that air-condition a single room. It is much simpler and quieter than the room units introduced several years ago. Some window-installation units, however, are not complete conditioners. When buying, be sure to ask the dealer to outline all functions performed. Right, above: For home-cooling, via the "air motion" method, the attic fan may be set on the floor over a register-grille, pulling the cool air up thru the house and exhausting the warm air thru apertures in the attic walls. The fan may also be set in the outside attic wall. Many types of attic fans are available, and they come in sizes adequate for all air-change capacities. See table on page 154

Air Conditioning, Cont.

natural convection currents being prevented by necessary design of system.)

2. *Indirect warm air.* Equipment: hot-water or steam boiler; blower-filter unit, humidifier and heat transfer coil all built into duct system; and controls. With hot-water boiler, a small circulating pump is recommended. Operation cycle: same as for direct warm air, except that air gets its heat *indirectly* in passing thru the steam- or hot-water-heated coil; and a thermal device attached to boiler regulates blower operation.

Advantages: economy, efficiency, flexibility, uniform conditioning, heat retention, and less room air stratification than by direct warm air systems. Disadvantages: forced-circulation in kitchen and bathroom—unless ducts there are replaced by piping and radiators; some loss of heat thru transfer.

3. *Indirect-Unit.* Two general variations. (A) The first plan means merely that certain rooms are independently conditioned by special heating-humidifying-filtering units, while others are heated by conventional radiation, hot water or steam being supplied to all rooms by central boiler. This system is for the owner who wants conditioning only in certain rooms, or who otherwise finds a full central system not expedient. It is flexible, and with addition of cooling coils in room units, plus refrigerating machine or well-water supply, can be used for summer cooling also.

(B) The other application is for the builder who prefers boiler-radiator heat and wants thoro humidifying, but not forced air, filtering, or duct system. Equipment: hot-water or steam boiler, piping, and radiators or convectors; one or two *humidifying-radiators*, depending upon size of house. Circulation of room air is by natural convection. Advantages: heating efficiency; fair flexibility; good humidity supply. Disadvantage: not complete air conditioning.

4. *Split System.* (Conditioning split between boiler-radiator and warm air methods.) Equipment: steam or hot water boiler; ducts to selected, or all, rooms; radiators or convectors in kitchen, bathroom, and elsewhere desired; blower-filter-humidifier unit; heating coil; automatic controls.

Operation: cleaned, warmed, humidified air is fan-forced to selected rooms in

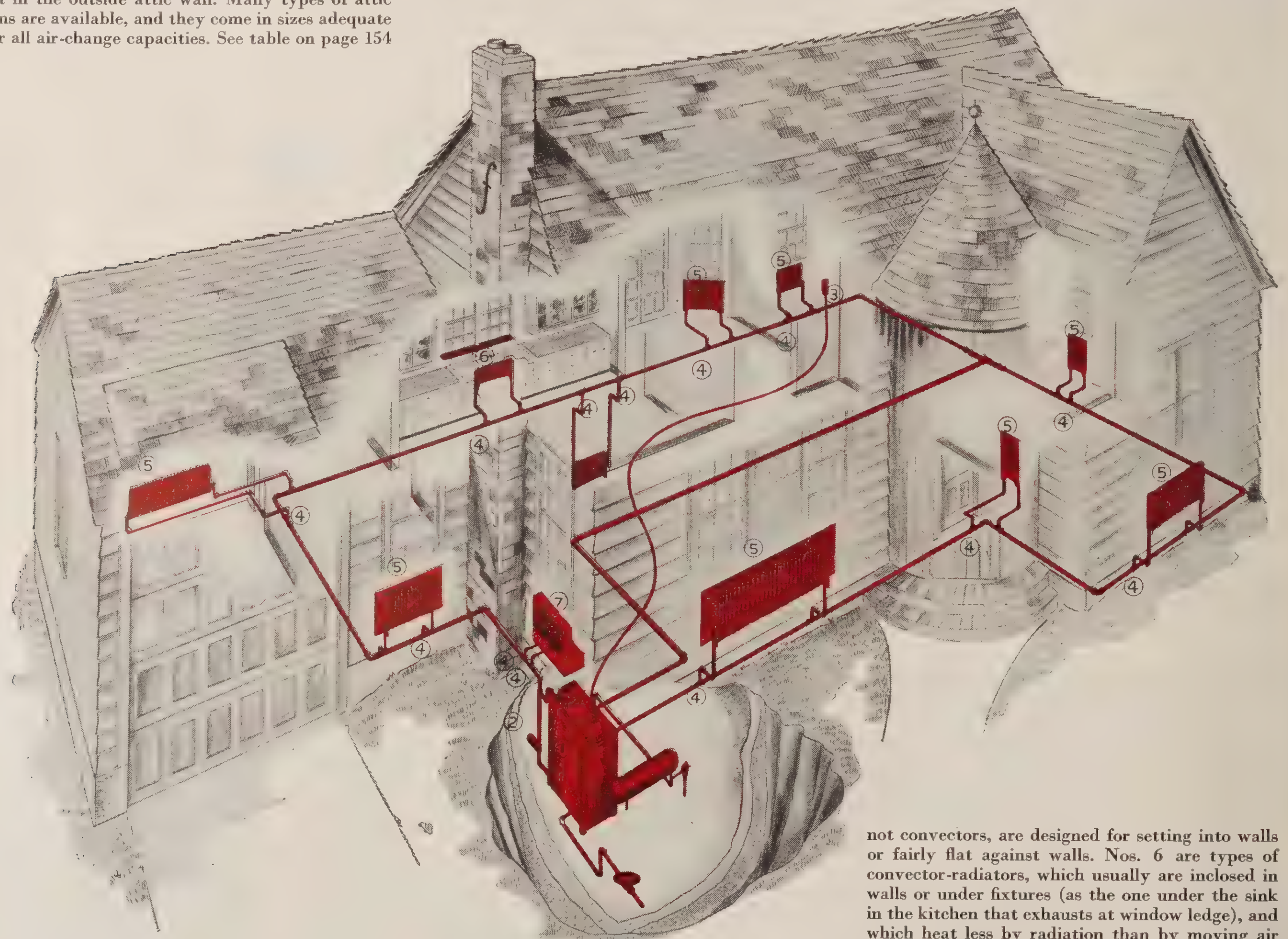
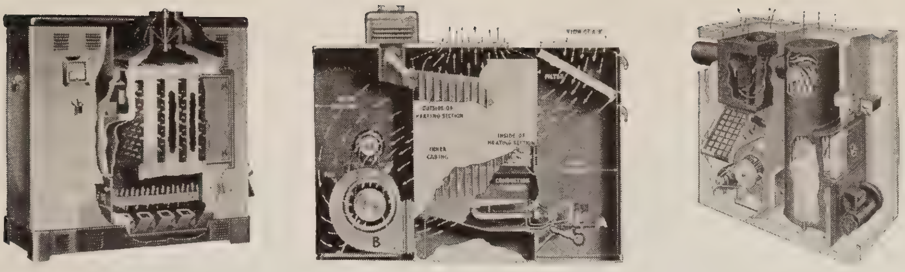


Photo-diagram illustrates the uses of the various factors possible with a boiler-radiator system of heating. It isn't a typical installation. It only suggests how elastic can be your heating and conditioning plan if you wish. No. 1 is a hot-water system boiler with auxiliary domestic water heater; No. 2 is the circulator for the heating system. Practically all modern hot-water heating systems employ a circulator or booster—means better, more uniform, and quicker heat distribution. No. 3 points out the room thermostat that automatically controls the operation of the system as the house requires heat. Nos. 4 are an important new addition to the science of home heating—a type of fitting called "monoflow" that makes savings in piping possible and assures more uniform heating.

Thruout, the Nos. 5 illustrate the various kinds and sizes of radiators available. Some, altho not convectors, are designed for setting into walls or fairly flat against walls. Nos. 6 are types of convector-radiators, which usually are inclosed in walls or under fixtures (as the one under the sink in the kitchen that exhausts at window ledge), and which heat less by radiation than by moving air currents. No. 7 illustrates a new type of combination heating and conditioning room unit that is a part of the boiler-radiator system and which humidifies, filters, and circulates the warmed air. It's possible to have one for each major room if you want, or two such units properly placed can condition a small home to a fair degree if there's free circulation between rooms. The object, of course, is to provide conditioning, in a radiator system plan, without the expense of a central heat-transfer coil unit and a house-wide duct system



Did you ever crave to see the innards of a heating plant, and to see how the air goes round and round? Left is a gas-fired hot-water system boiler. From the little mushroom-like buttons, flames and super-heated air pass up thru and around the sections containing the water. The makers of this boiler claim that its design means quick and economical heating, and that it prevents stratification of air in upstairs rooms because it holds heat long after burner stops.

Center is a gas-fired warm-air heater and winter air conditioning unit, with arrows to show air travel thru the blower and past the combustion chamber. Note the filter in the cold air passageway—an important item. It must be cleaned often or replaced at intervals for both efficiency and safety reasons. Because of fire hazard, it should, if possible, be of non-combustible material. Very good replaceable filters are now available, eliminating constant cleaning. Among materials used is fiber glass. It's important, too, to have a good motor and blower. Cheap motors waste current and give trouble. Poor blowers or poor mounting of blowers may mean vibration and noise, and possibly early replacement. Buying your plant from well-known manufacturers, and thru reputable dealers who have competent men for installation work, is your assurance in this regard.

Right is a cutaway of an oil-fired, warm-air, conditioning unit. Note here how cold air first passes thru a chamber where heat, which might escape with the smoke and gases from the combustion chamber, is absorbed before this air goes on thru filters and blower to the main heat-transfer area. This entire unit, including burner—like most modern plants—is inclosed in a decorative jacket.

As you inquire among various dealers, you'll find great difference of opinion about the use of cast iron or steel in the modern heater—with good arguments on both sides. Basically the difference lies in the fact that steel heaters heat quicker, thereby warming the house much quicker and indicating a shorter period of burner or stoker operation—but they also cool off quicker, which suggests more frequent periods of heater operation. On the other hand, while the cast iron units take longer to heat up, they hold heat longer, and generally mean less frequent firing. It's wise to discuss plants with a reputable heating engineer before you build.

This is a close-up of the conditioning unit for radiator systems which heats by convection and radiation while humidifying, cleaning, and circulating the air. It fits flush into both floor and wall

manner described for (2) foregoing; radiator heat is supplied independently.

Advantages: very flexible, efficient; *gives attributes of both boiler-radiator heat and conditioned air.* Disadvantage: slightly higher costs in most houses.

5. *Auxiliary System.* Similar to split system, but goes further. Equipment: same as for split system with exception that radiators or convectors are installed in all rooms, and ducts for conditioned air lead to practically all but kitchen and bathroom. An excellent system, it supplies uniform heating and conditioning thruout, is quite flexible, and permits heat modulation without reducing supply of conditioned air; but duplication of function runs costs above other methods.

How to Keep Cool

IT ACTUALLY costs much less per cubic foot to air-condition a house than to refrigerate food space. So why not be cool in your new home?

With a house of nine rooms or less, you need to invest less than $500 in *night air-cooling;* or you can buy a houseful of *refrigerated* comfort—either by natural methods of ice or water, or "artificial" methods employing a refrigerating machine—for around $1,000. And compared to the money spent for automobiles, that's cheap.

And of course you'll *dehumidify.* Summer air requires it—so that it will absorb more hot moisture from the human body; you'll *speed up* its motion to help further evaporation (and coolness); and you'll *filter* out the dirt and dust and pollen which contribute to hay fever and asthma.

But first you'll wisely spend a little money for *awnings, for cross-ventilating the attic,* and *for attic-floor insulation;* because awnings repulse heat which would penetrate windows, and insulation stops heat infiltration from roof and attic to second-floor rooms—reducing by as much as 20 to 30 percent the cooling loads necessary, with consequent saving in operating cost. Attic cross-ventilation removes the day's heat as it accumulates.

Your contractor will decide matters of cooling loads, et cetera, but you can choose your own basic method. And the COOLING method depends largely on whether you have *a radiator* or *warm-air furnace* system of HEATING, believe it or not.

Central Systems: If you have a furnace and duct system and want strict control of both temperature and humidity, you'll likely choose either central-system *artificial refrigerant* or *well-water* method.

Equipment needed for the former is a centrifugal-type fan with motor and belt, filter, cooling (evaporation) coil, sheet metal for inclosing and hooking to return side of furnace, a refrigerating unit, and the mostats with wiring. (Then by adding only a furnacestat and a humidifier unit you can have complete winter air conditioning, too).

For health's sake, never should there be a differential of more than 15 degrees between inside and outside. *If we dehumidify the air and keep it in motion, we'll be as comfortable, and healthier, without low inside temperatures.*

Refrigerating (compressor-condenser) units, to cool four to six rooms, or with the house "zoned" to cool more, but only two or three at a time, run as low as $300 to $600. The other equipment probably will mean no more than $300 to $400 additional. Season operation costs are cut from 20 to 50 percent with attic insulation and ventilation, awnings, and "night air-cooling." It is not recommended, in central-system plans, that bathroom and kitchen be included—particularly because it is not desirable to redistribute the heat, humidity, and odors from those rooms.

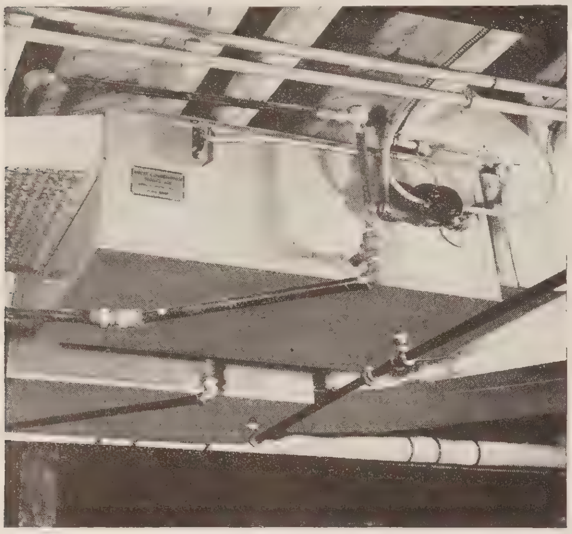
Well-Water Cooling: For the *well-water* method, equipment is much the same. In place of refrigerating unit there's a different type coil, deep-well water at 45 to 60 degrees, and a pump—total installed cost coming to $700 to $750, rarely over $800; using city-main water, considerably less. For most successful cooling, your well-water should have a temperature lower than 65 degrees, except where extra hot summers are the rule. Seldom will summer's operation cost exceed $20; it should be less with attic insulation and awnings.

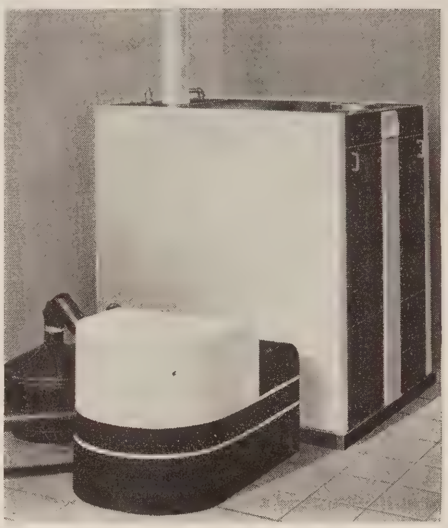
Ingenuity: Expended cooling water can be used automatically to sprinkle lawn and garden—with tempered water—while you relax in cool comfort! (One resourceful owner used the spent water for a little fountain in his side lawn.)

Room Coolers: If you build no ducts or grilles into your home, you might choose

Possibly you'll get some ideas from this for your own basement recreation room. Air conditioning heater and laundry room are to the rear

Often the conditioning unit for a central system is mounted on the ceiling. It consists of filters, fan, heat-transfer coils, and humidifier. It may serve for both summer and winter air conditioning, and for winter use it's suitable for either steam or hot water with Indirect, Split-System, or Auxiliary methods of air conditioning. Below, right: As dressed up in as formal attire as a Golden-Horseshoe opera fan is this modern-design stoker and heater. Stokers have also been improved otherwise





Regulating Humidity in Winter

Dwellings should be equipped with double-glazed windows or storm sash in order to obtain proper humidity without "window steaming." Here are possibilities in relative humidity when the home is *NOT* so protected. The figure on the right represents the highest relative humidity desirable at the outside temperature indicated. Higher humidity will result in condensation on windows; lower humidity than that indicated runs up the fuel bills because the dry air causes evaporation from the human body and this evaporation gives a "cold feeling" even when temperature inside is at the ideal 72 degrees or even when somewhat higher, and the result is extra firing of the heater.

Temperature Outside	Humidity Inside
40°	45%
30°	38%
20°	32%
10°	24%
0°	17%
–10°	10%

(With double-glazing or storm sash, humidity can be appreciably higher; and an electrical device, called a "Windowstat," will automatically stop humidifier when dew point is reached, preventing condensation on windows.)

ATTIC-FAN SIZES

To determine size of fan needed for the night-air method of home cooling, first compute total cubic feet air capacity in all rooms of your home. Then, by referring to the column indicating the number of changes an hour you wish for night-cooling, you'll find correct fan size opposite your house cubic-feet total.

Fans are rated in CFM (cubic feet per minute) capacity, but not always in even numbers. Select the fan nearest the size here indicated. The night-air cooling operation is continuous thru the night. With this in mind, air should be changed never less than 9 times an hour for adequate cooling; better, 15 or more. (Where extreme summer temperatures prevail, at least 30 changes per hour are necessary; better,60.)

House Capacity in Cubic Feet*	Select Fan With CFM Rating Indicated Below**					
	Number of Changes Per Hour					
	Eight	Ten	Twelve	Fifteen	Twenty	Thirty
4,000	560	700	850	1,050	1,400	2,100
6,000	800	1,000	1,200	1,500	2,000	3,000
7,000	960	1,200	1,450	1,800	2,400	3,600
8,000	1,120	1,400	1,550	2,100	2,800	4,200
9,000	1,200	1,500	1,800	2,250	3,000	4,500
10,000	1,400	1,700	2,000	2,350	3,400	5,100
12,000	1,600	2,000	2,400	3,000	4,000	6,000
15,000	3,200	4,000	4,800	6,000	8,000	12,000

Over 15,000—Fans rated less than 5,000 CFM will be too small regardless of number of changes desired.

**CFM figures are for free air. Where there is resistance to air passage, such as small grilles or ducts, larger or different type fan will be needed. Fans of lower CFM rating than here indicated can be used, but this will necessitate higher speeds and consequent noise and higher operation costs.

*If your house-capacity figure ends in a fraction of 1,000, take next highest round number in this column. EXAMPLE: Suppose your house contains 8,600 cu. ft. You decide on a 20-times-per-hour air change. The nearest house-capacity figure in this table is 9,000. Referring to the 20-change column, you find that you should have a 3,000 CFM fan. However, to be safe, it's best to select the next larger size fan of the manufacturer from whom you're buying the equipment. This might be 3,600 or 5,000.

Co-operating with the Editors in supplying illustrations and preparing this treatise on heating and air conditioning: Chrysler Airtemp (summer air conditioning), American Radiator—Standard Sanitary (heating-conditioning), Bastian-Morley (gas-fired heaters), Surface Combustion (gas-fired conditioners), General Electric (heating and conditioning), Emerson (attic fans), Conco (oil burners, stokers), Hershey (stokers), Crane Co. (heating, conditioning), Round Oak (heating equipment), Kewanee (boilers, heating equipment), Delco-Frigidaire (heating, cooling), Mueller Furnace, Dole Valve, Schwitzer-Cummins (stokers), Iron Fireman (stokers), Kimberly-Clark (insulation), Owens-Illinois (filters), Wood Conversion (insulation), Bennett (circulating fireplaces; see page 166), Carey (insulation), Superior (circulating fireplaces), Hoffman Specialty (valves and heat regulators), Holland Furnace, Superfex (oil heat), Williams Oil-O-Matic (oil burners), Ilg Ventilating (fans), Guth (fans), Norge (conditioning), Century (oil burners), Minneapolis-Honeywell (thermo controls), Wayne (heating equipment).

room coolers. These are portable, modern-design, attractive furnishings of either the self-contained variety, which have the devices for refrigerating, dehumidifying, circulating, and in most instances, filtering, built into the compact units themselves; or the "remote" kind, in which the refrigerating unit is located in basement or elsewhere, delivering piped refrigerant or ice water to one or more room units which cool, dehumidify, and circulate. A unit keeps one room perfectly comfortable in hottest weather, and can be thermostatically controlled. Units are classed, also, by the way the compressor is cooled—by water or air. The air-cooled type is a bit more expensive but is advantageous when there is difficulty in connecting to a constant water supply.

A number of improved and more compact units, which are lower cost, have been recently introduced, but most self-contained coolers come, installed, for around $200 to $500; the two-unit remote type, possibly $800 to $900—additional units in proportion; but operating costs are low because seldom are all units operated at one time.

Night Air-Cooling: Walled-up, stagnant air within an uninsulated attic runs from 120 to 130 degrees. When it's near 100 degrees outside in the shade, roof temperatures may run to 170 degrees. This terrific heat invades the rooms below.

At night in warm weather, however, the air near the ground outdoors is at least 20 degrees cooler than during the day. The *night air-cooling method* simply uses this free reservoir of coolness to cool the house.

A large exhaust fan is installed on the attic floor or in the wall; and there may be either a grilled opening in the ceiling of the room or hallway below, or the attic doorway may serve instead. Each hot evening when the sun goes down, all the windows and connecting doors of the house are opened and the fan switched on. Comes a breeze! Rapid passage of cool air up thru the house quickly cools the first floor. By bedtime the entire house is cool enough for restful sleep. In the morning the house is delightfully cool, and with the doors and windows closed it remains so until well into the afternoon.

Most certainly the attic floor should be insulated (saving 20 percent in fan-operating costs), and the attic cross-ventilated, May to September, particularly in the South. On excessively hot afternoons the fan can be used, with floor register-grille or attic door *closed*, to aid clearance of hot air from the attic.

A small exhaust fan will take the heat and odors out of the kitchen, the perspiration from the brow of the homemaker. A pedestal fan will keep air moving rapidly in other selected rooms.

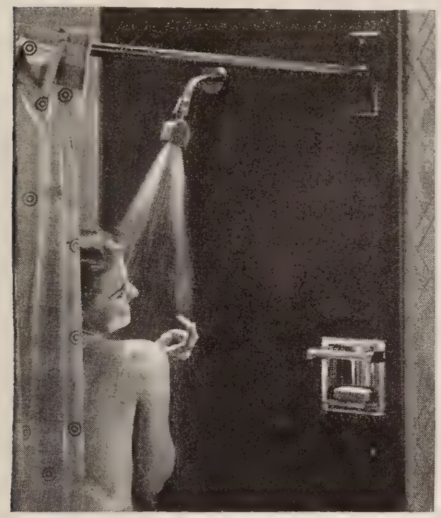
Attic fans, with housing and register-grille, sell as low as $85 or up to $450, installed. Awnings, insulation, cross-ventilation, kitchen fan, and pedestal fans can be included and still stay under $500.

A *portable* night-cooling fan is available for as little as $45 to $200. It looks much like a pedestal room fan, and, merely set up against the open window, it approximates the installed unit. Commonly used downstairs during the day, it's carried to attic or bedroom window in the evening.

The fan for night air-motion cooling must be of adequate capacity, however—*one which moves the largest number of cubic feet of air per minute at the lowest cost*—because for successful use of the method, all air thruout the house should be changed at least nine times every hour; best, thirty to sixty. Operation cost considered, fifteen times will suffice.

THE BASEMENT-FAN method is the same in principle and operation except that all air is filtered and forced up from below rather than pulled from above, and basement windows are utilized for intake instead of first-floor windows. The blower (see illustration, page 153) is hooked onto the furnace-duct system, return duct being dampered off for "night-cooling" but employed during hottest daytime hours (with all windows closed) when fan is used to circulate cool air from the basement. Blowers of 4- to 6-room capacity list from only $60 to $350. Installation costs may run anywhere between $25 and $150 per blower.

Plumbing *Piping .... fixtures .... trimmings .... decorations .... materials .... cautions .... care of plumbing*


Edward Rinker

1

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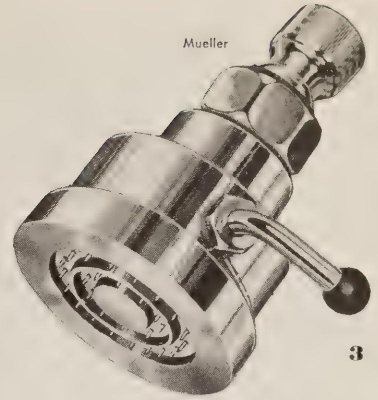

Mueller

3

1. **This shower head is one of several types designed to save water and be practically self-cleaning while giving a spirited shower**

2. **Sleekness is perhaps the attribute that best describes the newer bathrooms. This one combines style-plus-utility fixtures with glass block, composition tile and painted walls, linoleum floor, waterproof shower curtain, and lots of chromium to make it different indeed from the bleak bathrooms of yesterday**

3. **This close-up of a new-type shower head illustrates the novel cleaning method. A twist of the lever sends sharp prongs thru the holes, and in one thrust cleans them of deposits**

PIPING is the basis of plumbing. If you want pipes to last and give you rust-free water, consider brass, copper, or copper-bearing steel for water-supply piping and cast-iron pipe of adequate dimensions for waste.

Important plumbing considerations are: the vent or waste stack to carry off odors and provide ventilation for the entire system; rain-tight roof around stack openings thru the proper use of flashing; garden hose connections; individual shut-off valves on all tubs, basins, and bowls to allow repairs without shutting off the system; a basement drain faucet especially convenient to avoid winter freezing should you leave the house unheated for any length of time.

A modern bathroom gives the impression of having been made and installed in one piece. Its fixtures are in a definite and convenient relation one to another. Every part of its moisture-proof walls and floor can be reached for easy cleaning. There is no waste space and the room is decorative.

WHEN you go to your local plumbing show room to select fixtures for the new home, you'll see bathtubs that have completely broken tradition, both in color and form—greens, blues, reds of many shades, oranges, creams, ivories, even black. For that matter, that goes for the other bathroom and toilet-room fixtures, too, just as it does for the kitchen sink. (See pages 158-159.)

And forms! With scientific thoroness, designers have studied each of the motions that make up the process of taking a bath. Results: ingenious tubs with wide "seat rims" or built-in seats that make for convenient foot and sponge baths; low sides and wide, flat, or special non-slip bottoms that make it safe and easy for the elderly—and the youngerly, too!—to get in and out of the tub, and to feel safer while jumping around under a shower; grab bars at the side and back for both convenience and safety; raised spouts to guard against both bumped shins and back-siphonage (the bugaboo of the sanitary inspectors); clever little valve arrangements to save you from getting doused with hot water from above when you want the water to run in the tub and not out of the shower; and so on almost ad infinitum. All manufacturers have little innovations and tub tricks of their own.

The present-day tub is so completely built in it becomes a part of the walls and floor. Clever new shapes in tubs permit building into corners or square-shaped alcoves—or add to "seating arrangements."

AS FOR the lavatory—here, too, the designers have been busy, and your new home can boast of a cabinet-lavatory which has, in addition to the improved faucets and trim, the extra flat surface and "shelf space" for cosmetics and such, and the improved, no-splash basins, a complete cabinet below for soaps, linens, and sundries—in a wide choice of designs and sizes. Towel bars are standard equipment now on many of the better lavatories.

Toilets are not only better designed for appearance, they're also better designed for quiet, trouble-free operation and general utility as well as for ease in keeping clean. Many have flat tops, again for shelf purposes. On the whole, the new models have both lower tanks and lower seats, the latter on the suggestion of physical health authorities.

Showers supplement tubs, or are installed in separate compartments. And these shower stalls are either built in on the job or purchased as complete units and installed. When looking over shower equipment, ask about non-slip stall floors.

The up-to-date shower has a head (nozzle) which is small, easily adjustable, usually self-cleaning, and consumes considerably less water as compared to the older types. Some types are designed to give an aerated stream (simulating rain drops) in contrast to the "needle" or straight flow.

Mirrors are large, smart, and well lighted. Bathroom lighting, in fact, is now as correct as it is adequate and decorative. New, non-glare, florescent-type fixtures are on the market. And chromium—it's everywhere.

Besides the complete bathrooms, a toilet and lavatory for the first floor and also for the basement are convenient. (See the powder room pictures on following pages.) If your household is large or if family members have approximately the same hours for grooming, it's possible to provide additional lavatories in bedrooms or dressing rooms where needed.

Generally, when selecting fixtures, you will want to keep in mind that they are of four kinds—porcelain enamel on cast iron, baked enamel on steel, vitreous china, and porcelain. The latter two are usually in the higher price ranges, enameled steel is usually found on the more inexpensive fixtures, and enameled iron lavatories, tubs, and sinks probably account for the greater mass of sales. Each has its advantages.

OF RECENT years, the available decorative materials and pieces of incidental equipment for bathrooms have increased in number and variety.

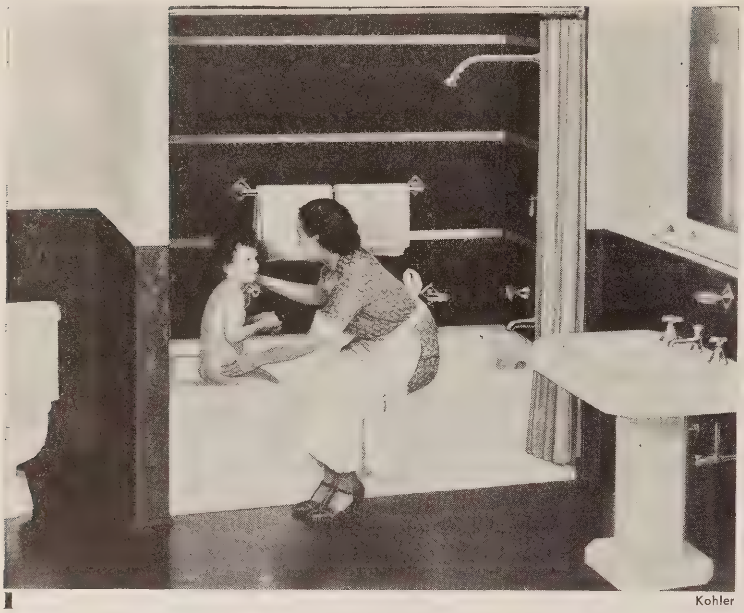
Glass brick, structural glass, and composition materials that look and feel like glass have come into common use for bathroom walls. They are easily cleaned, sanitary, and reflect light to brighten the room. Washable wallpapers are popular, as are a number of other inexpensive materials such as several varieties of composition and imitation tiles, linoleum, coated fabric, and metal tile; or the walls may merely be plastered and painted or enameled in attractive manner.

The conventional ceramic or quarried tiles are still used extensively for floors; or there are smart composition and imitation tiles, linoleums, rubber tiles, cork carpet, metal tiles, or special woods available.

Waterproof shower and window curtains in beautiful colors and patterns, and a host of sundries, lighting and convenience fixtures, and small-unit equipment invite the builder to make the bathroom one of the most attractive and well-appointed rooms of a comfortable and livable home.

All these fine fixtures require care, naturally. Make sure they're carefully handled. And when they're installed, see that workmen don't store tools, paints, and building refuse on the smooth,

[*Turn to next page*



1 Kohler

2 Standard

Rinker Photo

5

enameled surfaces, or use them as impromptu stepladders. It's a good idea to cover the fixtures with heavy building paper as soon as they're installed, and to keep them covered until all workmen have gone. Choose only the most capable of plumbers to install fixtures.

As for maintenance after the work is finished, all you need remember is that unless you've ordered special acid-resisting fixtures, stains will be left by fruit and vegetable juices, tea and coffee, drain-pipe solvents, film-developers, vinegar, and mayonnaise—if allowed to remain on the fixtures too long. Rinse them off with plenty of hot water as soon as possible. But ask about acid-resisting enamel fixtures. They cost a little more, but they're worth it. Vitreous china, however, is fairly resistant to soil and stain in itself. Practically all water closets, and some tubs and lavatories, are china.

6 Crane

7 Higginbotham Photo

Standard **3**

W. A. Case & Son **4**

Bathrooms—Powder Rooms

UTILITY and convenience run neck and neck with style in today's bathrooms and powder rooms. For instance, six of the seven bathrooms shown either have seats designed into them or special broad sides designed for the same purpose. Photographs **1**, **2**, and **6** illustrate three types of this design. Lavatories have no-splash lips; raised spouts to prevent back-siphonage; "shelf space" tops; graceful towel bars; faucets and handles that are not only better looking but also more conveniently placed and operated; and most lavatories now have individual shut-off valves (as do other fixtures, also), so that when something goes wrong with one fixture, only that one unit and not the entire water supply need be shut off.

Wall, floor, and decorative materials are legion—now designed with an eye to specific bathroom use. Rubber is popular, and linoleum is used for both walls and floors, as numbers **1**, **2**, **6**, **9**, and **10** indicate. The old standby, tile—both quarry and ceramic—is still used widely (see photographs) for walls and wainscot; but recent years have seen the composition tiles and wall materials become increasingly popular. They come in tiles, sheets, and panels, they're smartly designed and colorful, you have a wide choice of colors, they're sleek looking, some of them glass-like, and easy to keep clean, easy to install, and some of them are quite inexpensive. Glass in its many colors and convenient shapes is justifiably popular for bathrooms. It's sanitary, waterproof, and easy to clean. (See photographs **1** and **5**.) The use of glass block has also greatly increased, often to afford better lighting in the bathroom, but to get unusual effects as well (see number **7**).

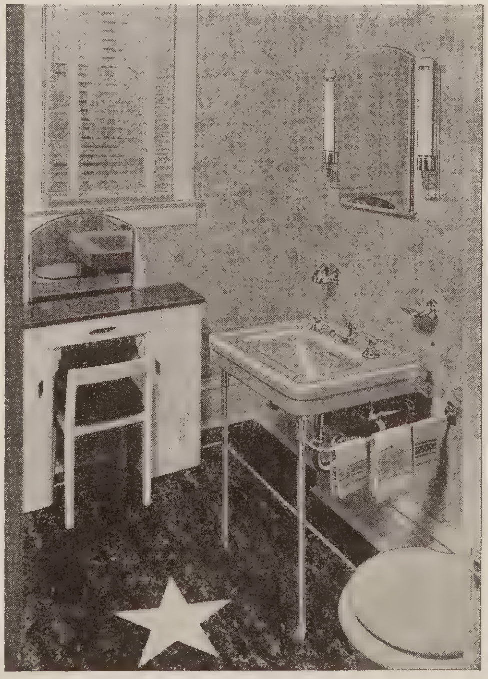
Among other popular wall coverings are the washable wallpapers, coated fabrics, and "soft" compositions (see photographs **4**, **6**, **8**, and **10**). A galaxy of color and design is yours for the choosing. In fact—whether it be floor or wall materials, trimmings, fixtures, or what not for the bathroom, there's just no end of choice available to you, all pledged to make your new-home bathroom a brighter, more usable, more practical, more decorative spot than the bathroom of even six or seven years ago.

The same goes for "powder rooms"—those downstairs "half-baths" which are a creation of the modern age. Three attractive powder rooms are shown here—numbers **8**, **9**, and **10**.

In addition to those supplying photographs, co-operating with Better Homes & Gardens in presenting this chapter are The Tylac Co., Marsh Wall Products, Armstrong Cork Co., Congoleum-Nairn, Chicago Faucet, Libbey-Owens-Ford, Pittsburgh Plate Glass, Owens-Illinois, Columbus Coated Fabric, Imperial Paper and Color, United Wallpaper, Clopay, and a number of the manufacturers of tile, rubber, and cork flooring.

W. A. Case & Son **8**

Crane **9**



Kohler **10**

Kitchen *It should be livable as well as efficient*

KITCHENS, like factories, to be efficient should be built on a production-line principle—a simple, direct route of the "product" from grocery-delivery as raw materials until, as finished product, it goes into hungry mouths at the dining table.

Your kitchen should:

1. Be arranged efficiently and conveniently
2. Be provided with liberal storage space
3. Have plenty of light—both daylight and artificial light—and be well ventilated
4. Be easy to keep clean and maintain
5. Be well equipped
6. Be comfortable, livable, and express your personality.

Arranging a kitchen for efficiency and convenience automatically breaks it down into three main working areas.

First, near the entry door, is the *Refrigerator and Preparation* center. Next, at the "axis" of your kitchen is the *Sink and Dishwashing* center. Then, near the exit to the dining-room is the *Range and Serving* center.

The Three Work Centers

1

REFRIGERATOR AND PREPARATION CENTER

Refrigerator

Perishable foods

Work Surface

All supplies and equipment for food preparation and mixing, salad bowls and dishes
High or less-accessible space for little-used supplies

Base Cabinets

Preparation cutlery, equipment, and utensils
Containers for flour and sugar, unless in upper cabinets

2

SINK AND DISHWASHING CENTER

Work Surface

Right-hand counter or drainboard for stacking soiled dishes, vegetable cleaning, etc.; left-hand basin or drainboard for draining dishes

Wall Cabinets

Left-hand for dishes and glassware; higher or less-accessible space for cleaning-supply storage, flower holders, etc.

Base Cabinets

Silverware; cutting board, extra set preparation cutlery unless sink is adjacent to Preparation Center No. 1; cleaning equipment and supplies, tea towels, drier; utensils for water cookery; ventilated vegetable bin, garbage and waste containers

3

RANGE AND SERVING CENTER

Work Surface

Nearest dining-room for serving food; also for cooling baked foods, for hot pans

Wall Cabinets

Condiments, tea, coffee, teapot, coffee-maker, serving dishes, toaster, etc.

Base Cabinets

Bread board, bread, crackers, cereals; cooking and serving spoons, cutlery, etc., thermometers, frying and broiling pans and equipment, cakeracks, etc. Hot-pan holders

Naturally areas overlap, but because the major part of the work of preparation is concentrated in the first area, all necessities to that work are concentrated in the cabinets immediately adjacent; and because the next logical work step in meal preparation is that which involves the sink, that area is placed contiguous, also, with its own individualized storage space. Another reason for placing the Sink and Dishwashing Center in the "middle" is that operations *after* cooking, serving, and dining are concentrated in that area before finally extending in both directions as the various materials are returned to the first and third centers.

The whole plan, therefore, is designed to *save* the most hurried and needless *steps* thruout the entire kitchen task, rather than the most steps in any one phase.

Supplementary Service: In addition to the three work centers described, many kitchens provide space for one or more of the following Supplementary Services: Planning Desk, Dining Space, Laundry Space, and Sewing Space. The "Planning Desk" of course will include, if possible, a comfortable chair, a telephone, account records, menu and recipe books, shopping list, and perhaps a radio, in addition to desk. This is sometimes called a "Control Center."

Types of Kitchens: All planned kitchens divide themselves into one of seven types, as follows:

U: The three work centers are placed along three adjacent walls, thereby forming the letter U. The Sink and Dishwashing Center should come at the base of the U.

L: The three centers are arranged on two adjacent walls, forming a perfect L, with two centers on one wall and the third on an adjacent wall.

Broken-U: The three centers are on three adjacent walls, but one of the centers is disconnected from the other two by a break in the cabinets and work surfaces caused either by a door or a window.

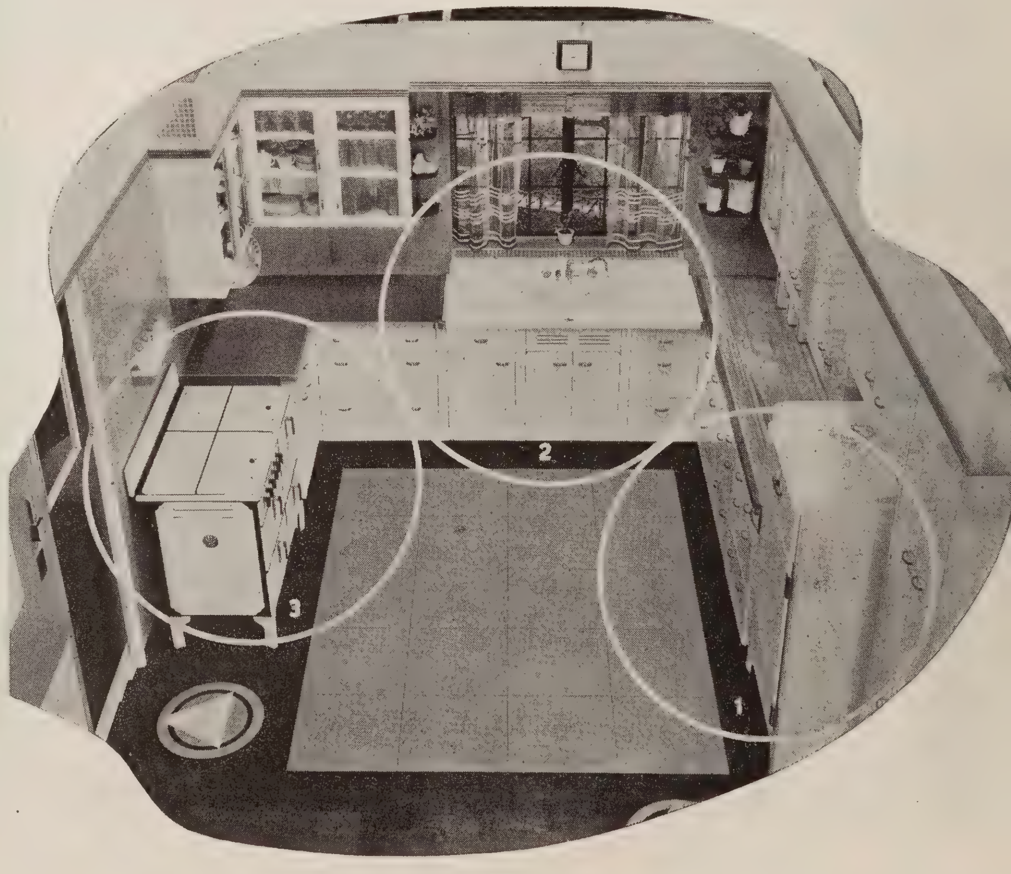
Broken-L: The Broken-L types result where the three centers are placed on two adjacent walls which are separated from each other by a door or window opening.

Two-Wall (Parallel-Wall or "Corridor"): This type of kitchen results when two centers are placed along one wall and the third center on the opposite, parallel, wall. This plan should be used only in long, narrow kitchens.

Individual Center: Here each completely organized center stands by itself. The centers should be placed, however, in the regular sequence, the Sink and Dishwashing Center located between the other two.

Straight Line: In this type the three centers are arranged along one wall in a

← For explanation see table, left



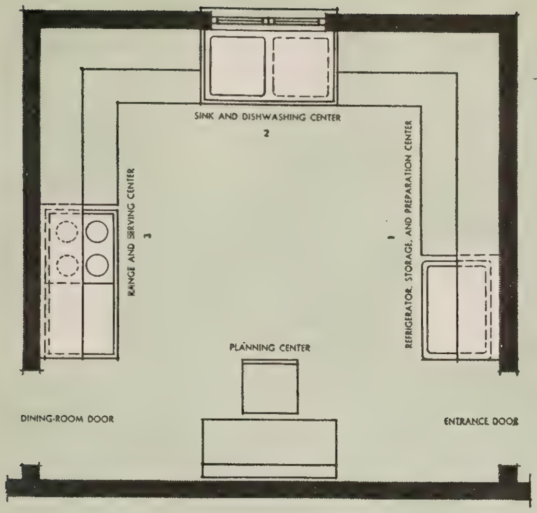

SINK AND DISHWASHING CENTER
2
RANGE AND SERVING CENTER
3
REFRIGERATOR, STORAGE, AND PREPARATION CENTER
1
PLANNING CENTER
DINING-ROOM DOOR
ENTRANCE DOOR

Figure 1: U-shaped kitchen

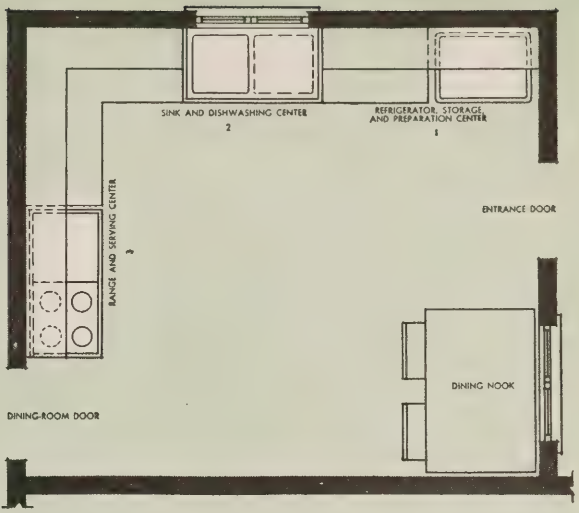

SINK AND DISHWASHING CENTER
2
REFRIGERATOR, STORAGE, AND PREPARATION CENTER
1
ENTRANCE DOOR
RANGE AND SERVING CENTER
3
DINING NOOK
DINING-ROOM DOOR

Figure 2: L-shaped kitchen

The Editors are indebted to the following manufacturers and agencies for assistance in compiling this treatise: Crane Co., Westinghouse, General Electric, Mullin Mfg. Co., Whitehead Metal Products, St. Charles Cabinet, and Curtis Companies—among others. If you'd like a comprehensive, liberally illustrated treatise on how to plan, build, remodel, arrange, decorate, and equip the kitchen of today, write Better Homes & Gardens, 9223 Meredith Bldg., Des Moines, Iowa, for 34-page book, "New Ideas for Your Modern Kitchen"; price 10c.

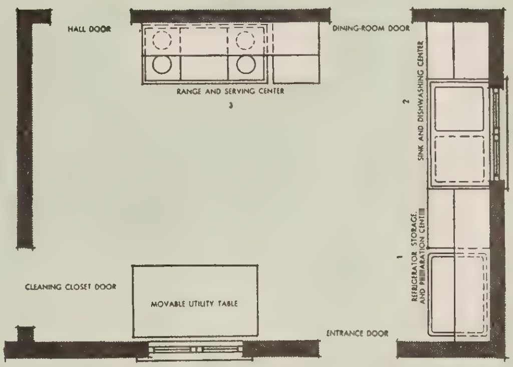


Figure 3: Broken-L-shaped kitchen

straight line. Use of this type should be limited to one-bedroom residences; otherwise the distance between range and refrigerator becomes an inconvenience.

If you will refer to "The Three Work Centers" listings, page 158, and then to Figures 1, 2, and 3, you will see how location is accomplished for each type of kitchen.

A work surface adjoining the refrigerator is ideal for concocting salads and beverages. Avoid having either the refrigerator or range placed in a niche or out of the regular assembly line. A serving area at the right of the range adjoining the dining-room entry is convenient.

STORAGE space is tied up definitely with work areas, because utensils, equipment, materials, and food required in any work area should be stored within arm's reach.

Avoid dead-end corner space. Diagonal cupboards meet the situation in most kitchens.

With at least a large window at the Sink and Dishwashing Center where most time is spent, and with intelligent use of the delightful no-glare artificial lighting developed in recent years, your kitchen will be a bright, cheerful place; saving on your eyes, more comfortable, more pleasant in which to work. For more detailed guide to wiring and lighting a kitchen, see page 147.

There should be a ventilating fan—for freshening the air, dissipating odors, and summer cooling. Proper ventilation is as important for "feeling cheerful and peppy," and for work efficiency, as it is for health.

It's just as simple to build a kitchen that's easy to maintain and keep clean as to build one that means hard work. Avoid dirt-catching corners (have *rounded* corners), fixtures and equipment you have to clean under and around, and surfaces that catch soil easily or cannot be kept shining without extra work. Have a *good* floor—linoleum, rubber tile, composition, or what—with a surface that doesn't absorb soil, and that's neither fatiguing to walk on nor short-lived.

Thirteen inches is a popular depth for upper cabinets. The standard width for sinks, ranges, and ready-built cabinets is 25 inches. This will line up all equipment in a smooth front line—no jogs or projections.

Sinks, ranges, and cabinets are now tailored to a standard 36-inch working height. This may be adjusted for the individual.

Some toe and knee space is important. Usually a 15- to 18-inch space is allowed between cabinets and work surface. This distance will depend on the height of the worker. This is very important. If possible, plan to have some work space without an overhead cabinet. Closing the space between the top of the upper cabinet and ceiling either with plaster or wallboard is recommended. This eliminates a definite dust trap; often is referred to as "furring."

ABSOLUTE requisites in fixtures and equipment are an acid-resisting sink (preferably the cabinet type) with either ample drainboard space or a double-basin; an insulated, controlled-oven range; and a refrigerator of adequate size. There should be as many pieces of modern, work-saving, quality equipment as you can afford, but make those three the minimum. Cheap materials mean hard hours of extra work, early replacement because of chipping, cracking, marring, or denting (or with range, because also of poor and costly operation, food spoilage and burned-out parts). A cheap refrigerator is even more costly over the long pull.

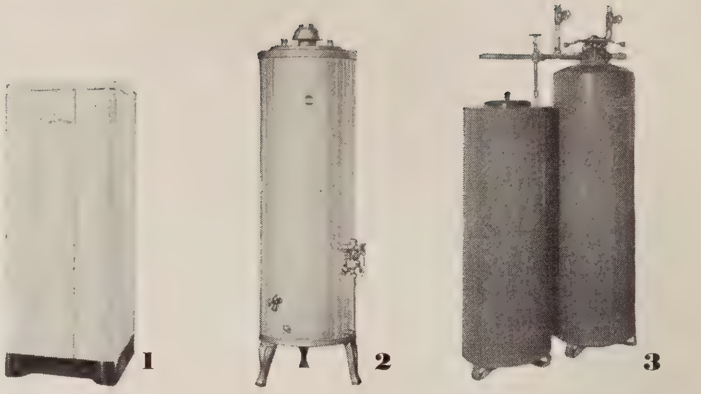
Incidentally, it's possible now to buy new kitchens in package units—cabinets and cupboards for individual working areas, designed to accommodate themselves to those areas specifically; or complete kitchens.

A comfortable, livable kitchen is that which has the least-interrupted one-level work surface—at proper height from floor for most comfortable work, stools, step-stools, and other thoughts for constant convenience and comfort; *plus* cheerfulness and your own touches to make it livable, and a decoration scheme that will "wear well." There should be, for instance, a place to sit down for an occasional meal or snack (unless dining alcove is adjacent), perhaps together with desk, sewing basket, radio, or whatnot to give the cold, practical "chassis" a feeling-tone of hominess and livability. Or, this arrangement can be flexible to provide play space for children of an age requiring constant mother watchfulness.

At any rate, *your* kitchen should express YOU—in the color decoration, the touches in curtains, gay accessories, potted plants, or whatever expresses you and makes life pleasant for you.

Water Conditioning

Heating....Softening....Filtering....Neutralizing ....These are the means by which you get the fullest service from an indispensable utility



(1) Automatic electric water heater. These handsome units also come in table-top models, as do (2) Gas-fired automatic heaters. Like most new models, this one's designed to conserve heat and save fuel. (3) Water softener with brine tank. You can get softeners such as these combined with neutralizers or filters for acid, over-alkaline, or bad-tasting water

WATER is somewhat of a tramp, and chances are before it reaches your new-home faucets it has picked up a number of bad companions and unsavory tendencies. To get the most from the water you use, it's wise, then, to provide means of taming and disciplining this vagrant. The new-home-builder, if he lives in a region of hard, dirty, or corrosive water—and few don't—will think of water-conditioning equipment at the time he plans for other new-home materials and equipment. The same goes for water-*heating* equipment, which, altho the last in the sequence of conditioning, is taken up first in this résumé:

When selecting a system to provide an abundance of hot water in your home, you may have a choice, in general, of two methods:

1. Auxiliary or indirect heating thru equipment attached to or incorporated in the furnace, hot water, or steam boiler;
2. One of several kinds of unit heaters, fully automatic or manually controlled, with or without a storage tank, and fired by gas, kerosene, electricity, gasoline, coal, coke, oil, or distillates.

With a warm-air furnace, automatically fired and controlled, it can be arranged to supply domestic hot water winter and summer automatically. If the furnace isn't automatic, you will want one of the unit heaters, either automatic or hand-controlled, for summer supply. Auxiliary hot-water heaters attached to steam or hot-water boilers also can be used year-round, if the heating plant is automatic.

Or even then you may prefer a separate-unit heater. It's best to make your decision at the time you build, for installation costs may be a bit lower. Altho possibly a little higher in initial and operating costs than indirect systems, the *automatic* hot-water heater saves many turn-on, turn-off trips and assures a plentiful supply of hot water day or night. But when you buy such a heater, select one built for economical operation. There are many new methods of providing a larger and improved area of contact between burner and water, for instance. There are ingenious devices for reducing tank cooling still further. There are heaters with burners that can be changed as your family and hot-water needs increase! One new model has a valve which can be set for low, medium, and high demands of hot water. Another has been designed for extra-fast heating action.

UNIT heaters may be installed anywhere convenient. Of late there is a trend toward installation in a utility room on the first floor. There are table-top heaters for kitchen installation, handsome in sleek enamel jackets, which fit right into your "continuous-counter" fixture arrangement. In addition, you can buy heaters for installation under the sink or inside the kitchen cabinet.

The tankless heater is semi-automatic (faucet-controlled); installed near point of use in bathroom or kitchen.

HERE are water-heater guide points: (1) Is heater of sufficient capacity for your home? In the one-bathroom-with-shower home, tank capacity should be 25 gallons or more; with two bathrooms, 40 gallons or more; more than two bathrooms require a 50- to 60-gallon tank. (2) Will tank stand potential water pressures? (3) How and of what is tank made? Some materials rust easily. Galvanized steel, welded and riveted, is satisfactory, but copper and copper alloy tanks last longer. (4) Is insulation sufficient? The better the insulation, the longer heat is held, and generally the less fuel consumed. (5) Are these safety controls important to your peace of mind? Find out where they are, what they are, and how they operate to insure dependable, trouble-free operation. (6) In automatic gas and liquid-fuel heaters, is burner properly constructed; and is the heater economical in operation? With electric heaters—are method and heating element economical; what are voltage and wattage; is your wiring system adequate; can you get special power or "off-peak" rate? (7) With gas or liquid fuel—is ventilation provided? (8) Can heater be easily serviced and maintained? Water heaters must be checked, adjusted, and cleaned regularly, and deteriorating parts immediately serviced. And see that the tank provides an easy way to flush and drain it. (9) Does instruction book come with unit?

Conditioning

In regions afflicted with hard water, or water of high acidity, alkalinity, or iron content, to include *water-conditioning* equipment as a definite part of your building plans is wise. The saving in soap and plumbing repair bills alone may pay for the equipment in a short time.

High acid-content water is identified by persistent discoloration of water due to attacks on metal piping—from iron pipes the water may run red or "muddy"; from copper, greenish hue. Iron can be detected by taste and smell. It leaves stains on your lavatory and rust on your linens. Sometimes water tastes fishy, marshy, or of chlorine. Corrective equipment for all water that enters the home is now available. There is moderately priced equipment which will filter or neutralize alkalinity or an acid condition; and devices which combine neutralizing and softening, or filtering and softening.

HARD water, of course, is the greatest bane. Calcium and magnesium in water combine with soap to form insoluble curds and scum that leave hard-to-clean deposits on plumbing fixtures; leave glassware cloudy, silverware and china smudgy, hair lusterless, skin red and rough; the fibers of clothing and linens dingy, brittle, and of shortened life. More—hard water wastes soap everywhere used; and cooking takes longer, discolors and toughens vegetables. Minerals are deposited in plumbing pipes and coils, particularly when heated, resulting in impaired service, repairs and replacements, and increased water-heating costs.

There are several softening agents, but the new-home-builder likely will consider only equipment that softens all water entering the home—employing a bed of synthetic materials or mineral (most common—*zeolite*) which has the attribute, as long as "charged" with sodium, of attracting hardening minerals out of water; like a storage battery, it is recharged or regenerated periodically with brine. For zeolite are substituted other ingredients, each designed to do its special job thoroly and without fuss—sand to remove dirt, activated carbon to absorb bad taste and odor, other minerals to remove iron and neutralize acid. The remedy for acid water usually involves merely passing the water thru a filter unit holding crushed marble. In case of acid water, it's nearly always wise to combine a softener unit with neutralizer unit. One supplements the other.

MECHANICAL softeners are of two kinds: 1. Completely automatic, with regenerating brine tank attached, and electrically operated. 2. Manually regenerated, either with or without attached brine tank.

The size and capacity of softening- and conditioning-equipment are determined by: 1. Hardness and chemical content. (Water containing more than 10 grains of mineral should be softened.) 2. Size and types of plumbing. 3. Amount of water consumed, weekly average. Equipment manufacturers will measure hardness for you without charge.

Co-operating With BETTER HOMES & GARDENS: *Gas-fired Water Heaters:* Crane—Bastian-Morley; Whitehead; Everdur Tanks. . . . *Oil and Kerosene Heaters:* Perfection Stove Co.; Timken. . . . *Indirect Heaters:* Delco-Frigidaire; General Electric; Timken; Crane; American Radiator—Standard Sanitary. . . . *Electric Heaters:* Kelvinator; GE-Hotpoint; Delco-Frigidaire; Westinghouse. . . . *Water Softening and Conditioning:* Red Jacket; Permutit; Stover; Warlo-Crane. . . . Doubtless you will find dealers for these products in your town or city.—*Editors.*

Laundry

Your laundry should be as pleasant as it is efficient

YOUR home should have a modern laundry, laid out and equipped for efficiency, located and furnished for dryness, well-lighted, well-ventilated, cheerfully decorated, easy to clean and maintain, and supplied with plenty of hot, soft water. Here are a number of points to check in planning an efficient laundry room:

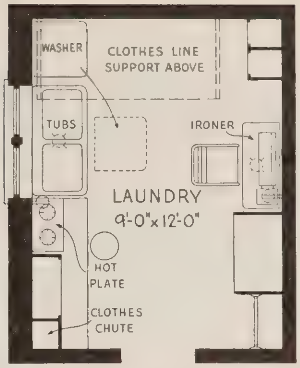
1. Tubs located so that waste and supply pipes are readily available
2. Sorting tables or bins located near entrance door or chute
3. Other equipment arranged in order of use to save steps
4. Natural light available, and adequate artificial light provided
5. Plenty of electric outlets available
6. Indoor drying or plenty of space for pulling out racks if drier is used
7. Cabinets for mending and laundering supplies
8. Gas or electric plate for starch and stain removal
9. Well insulated from dirt and dust of other parts of basement
10. Abundant supply of hot, soft water

THE laundry should be immediately accessible to drying yard, kitchen, telephone, and nursery in order to minimize steps and stair-climbing, preferably on the first floor. Pieces of equipment should be placed in order of use. Minimum-essential equipment will include: 2-compartment tub with swinging, water-mixing faucet and no surface or finish to rust; drying racks or lines; ironing facilities. Next in order of importance and as you can afford them will come: washer, storage cabinets, ironer, drier—and finally, toward perfection, sorting tables and bins, additional storage space, hot plate, siphon pump for emptying washer and receptacles, clock, ventilating fans, and extra tubs. Study the suggested floor plan for efficient arrangement of your laundry.

TUBS should be installed at correct height, and corners and rims should be rounded so that dirt won't accumulate and corners will not tear clothing or cause personal injury. Swinging-spout faucets with hose connections will distribute water to tubs and washer without bucket-lifting.

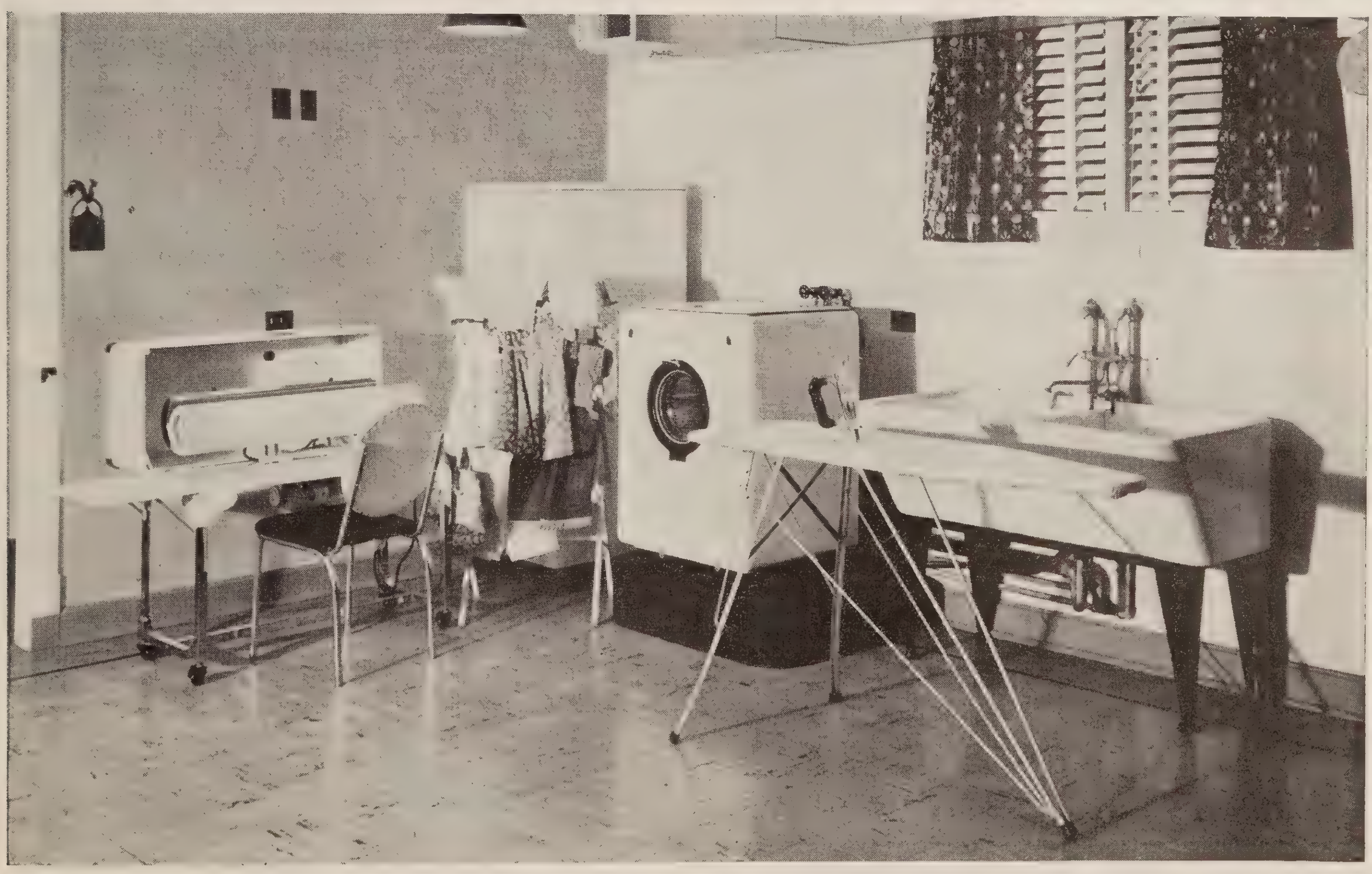
Your laundry should be in a dry place, near ample draining facilities, and with both dampproofing and furnishings that dampness will not injure. It should be well closed against dirt from basement or outside; all fixtures, equipment, and furnishings should have rounded corners and edges and no crevices to catch soil, with surfaces easy to clean and maintain.

Wiring of the laundry to take care of the electrical equipment included should be studied carefully, preferably by an electrical engineer. If inadequate to take care of the load, heavier wire with a sufficient amount of copper to conduct full voltage should be installed. Most houses built only a short time ago and wired just for lighting will require new laundry circuits in order to serve the equipment efficiently. (See pages 146–147.)



YOUR laundry may have a color scheme, too! If in a dark basement, light colors should be used to reflect the light. One color suggestion: light peach with wood trim in turquoise blue, and a dark blue for the floor. You might use a special cement paint for the floor, or asphalt tile which may be laid in cement directly over the concrete—which will resist dampness. Install ceiling lights in strategic points over tubs, ironer, etc., including 12-inch globes housing 150-watt lamps. Too much lighting is better than too little; modern, indirect lighting is best. Attractive curtains and flowering plants will create a pleasant atmosphere.

While not as well arranged as the model (floor plan) above, this is a better than average equipped laundry



Snack Nooks

Here are ideas for delightful cubicles that add a colorful note of hospitality and comfort to the kitchen and make a "sit-down" of quick lunch time

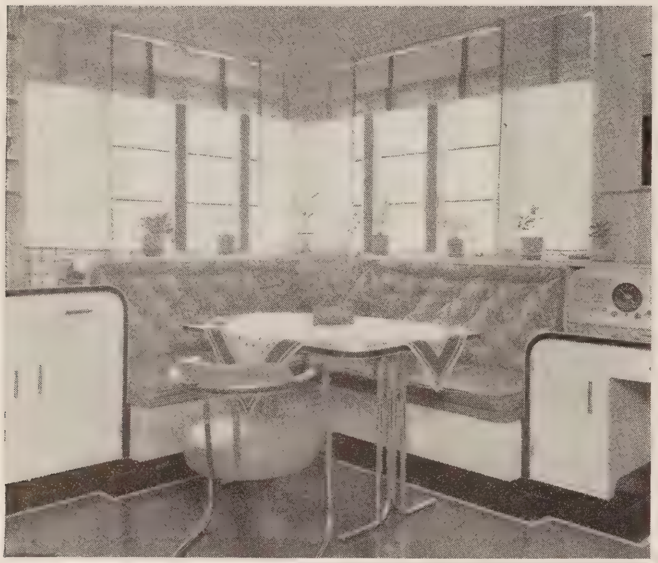
1 If you're tool-handy, you can build this nook. Work out your colors, or pattern after this richly hued scheme—burnt-orange leather for the seat, marbled maroon rubber tile with black border and cream feature strip for the floor, marbled taupe wall linoleum wainscoting, and jonquil yellow for walls and ceiling are the colors.

2 A space-saving dinette and buffet all in one! Red and eggshell moleskin cover the inner-spring seats and comfortable-slant backs. Two plate-glass doors on rollers keep glassware dustless but decorative. The wall rail lowers a high ceiling and displays colorful trays or other items that are changed with the seasons of the year.

3 Those upholstered seats—lemon-yellow and black—hide storage space. Telephone, radio, electric outlets, and cookbook space are handy. Walls are lemon-yellow with Pompeian-red back splash; ceiling, eggshell ivory; floor, light cream cork composition; curtains, rubberized silk of lemon; and Venetian blinds, light cream.

4 Near the range and just a few steps from the refrigerator is this breakfast bar where the family enjoys morning sunshine. Counter-depth, curved shelves with electric outlets in back wall house toaster, waffle iron, and percolator. Top drawer of those beneath corner shelves can be easily opened by one seated at end of bar.

5 No carpentry problem here—just an inviting breakfast or snack corner bought ready-built, installed, then finished to match your kitchen. Red-leather cushioned seats set off the white table and woodwork, and pick up the gay vegetable-patterned wallpaper. No knees will bump the firmly pedestaled, mushroom-style table.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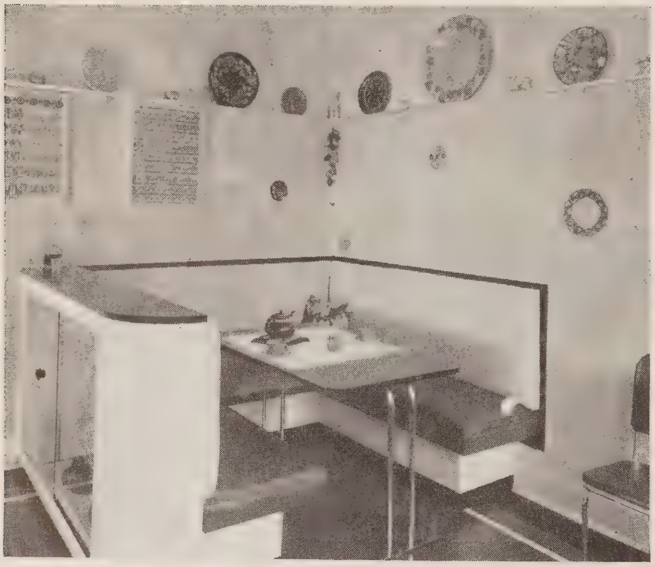
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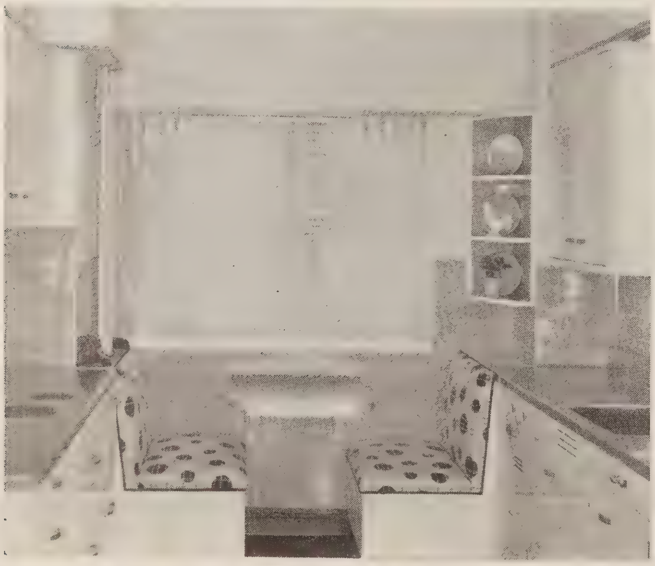
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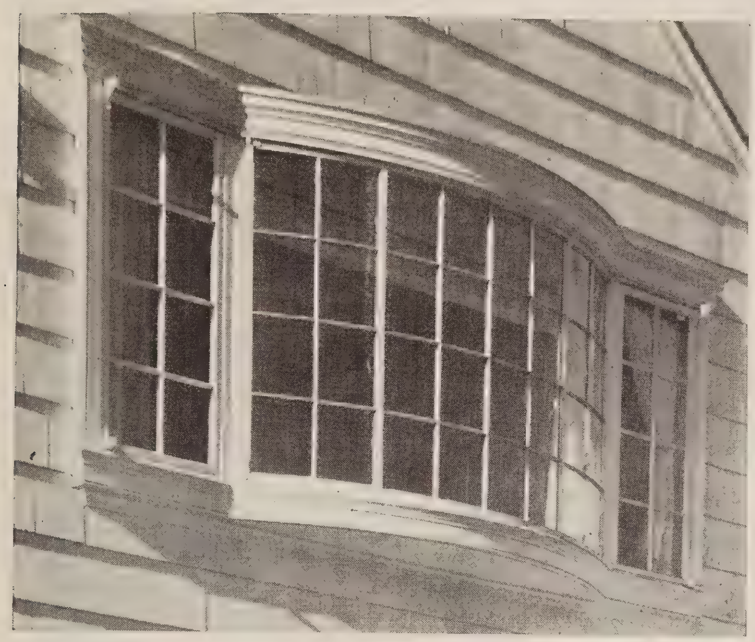
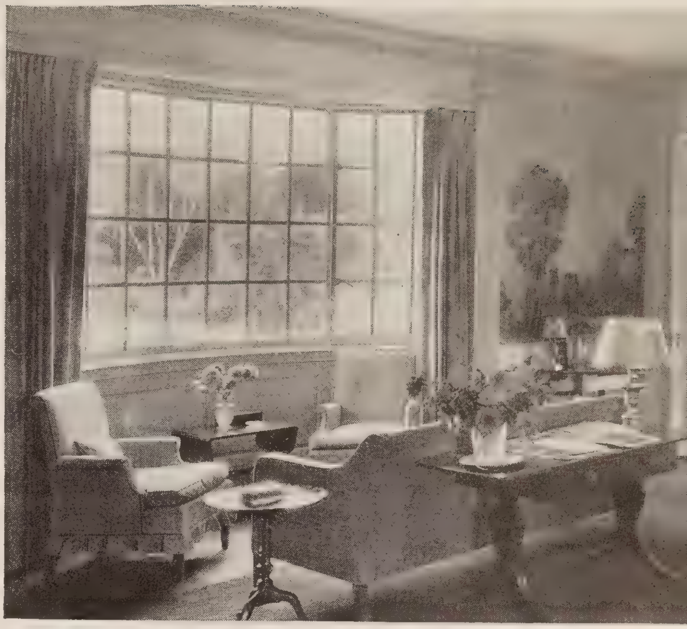
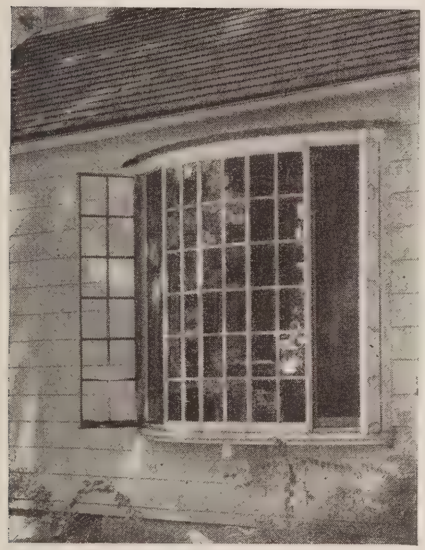
Bay Windows *. . . pay sunny dividends*



Casements balance the curving center in this triple bay



This one extends cheerful invitation to sit and sew, read or rest

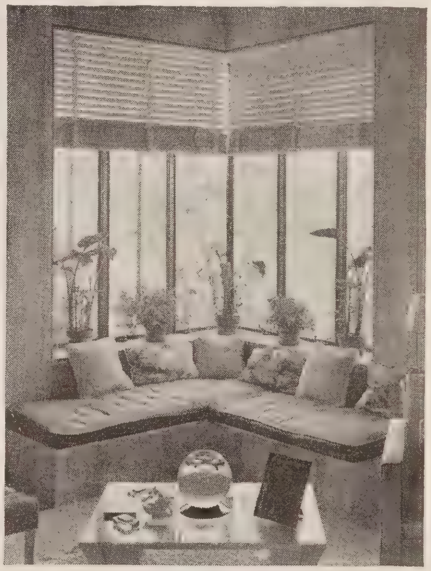


Graceful rounded bay marks a shady spot

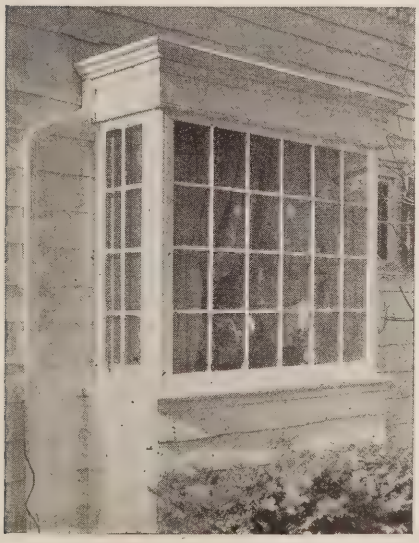
YOU can have a bay window most anywhere—first floor, second floor, or as a dormer. Purpose and appearance dictate height of window sill and whether doors or windows shall be used. Door and window heads should ordinarily be same height as similar room openings. Since maximum glass area is highly desirable, mullions or supporting members between window units should be very slender.

The exterior wall surface below window sill normally is same as that of other walls, but material may be changed to harmonize yet not match. Keep outside framework simple. Paint to conform to rest of house. Flash roof of bay well to keep out water.

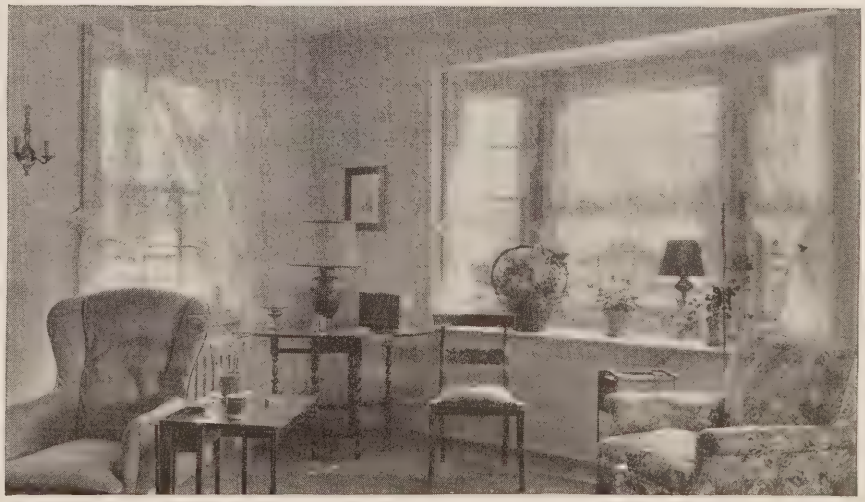
On interior—ceiling gives best appearance usually when built down close to top of window trim. In the plan, the bay may be rectangular (sides right angles to face), or, more commonly, side may be at any angle offering good appearance to front face. Or, entire bay may be curved at practically any radius.



Whether you call this a "corner window" or a bay, you'll get the same sunny results



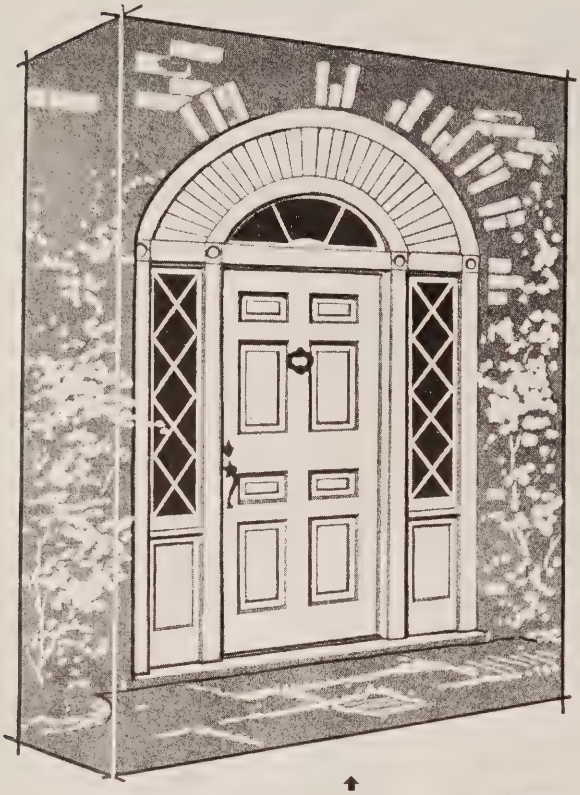
Rather crisp, and Colonial—lots of panes



The generous shelf for flowers was a happy thought in this wide, pleasant bay window

Packaged Millwork

They're really prize packages—these stock



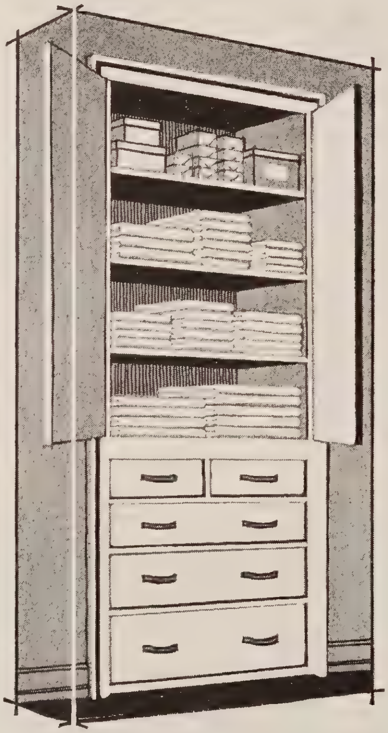
↑ **One of a whole new line of distinctive doorways so designed that they will harmonize with a number of styles and with any type of wall material**

WHAT'S good news in millwork which comes in a carton ready to be built in? You'll be surprised for two reasons: because the best of artistic and construction talent has produced new items which cost less than you'd guess, and because your house can use at least one of them. There has been a long list of improved millwork items developed. On these two pages only a few are selected at random—to whet your interest to look up a complete catalog and so discover what will best serve your most urgent needs. If you're building a new house, specify stock items such as these. They'll save you a lot of money.

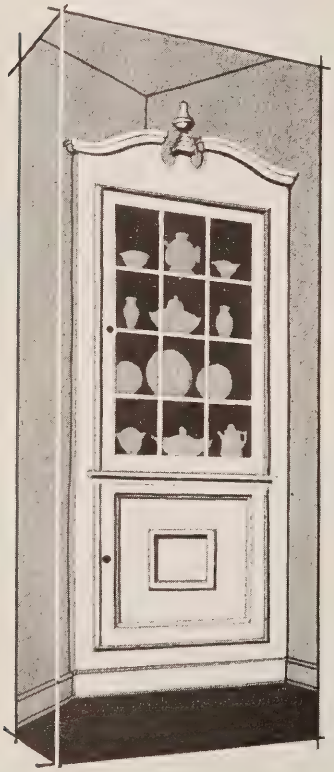
The stock-millwork industry for many years was afflicted with the inertia that seemed prevalent in many lines, the attitude being to let well enough alone. Then a new generation of leadership began to realize that there was no good reason for mediocre design; that fine design was just as economical and of course far more attractive to the prospective home-builder.

Accordingly, the most distinguished architects in the small-house field were called upon to employ their skill and ingenuity in developing new doorways, cupboards, cabinets, and other items required in the average house. Simplicity was a natural requirement for economical quantity production, and the examples we show are only a few of the many distinguished and practical items that you can have built into your house at a cost very substantially below special items and with increased charm and no loss of usefulness.

With little doubt, your local building-material dealers will have the items pictured here, and many others. But in the event none are available, write *Better Homes & Gardens'* Home Service Bureau for names and addresses of sources of supply.

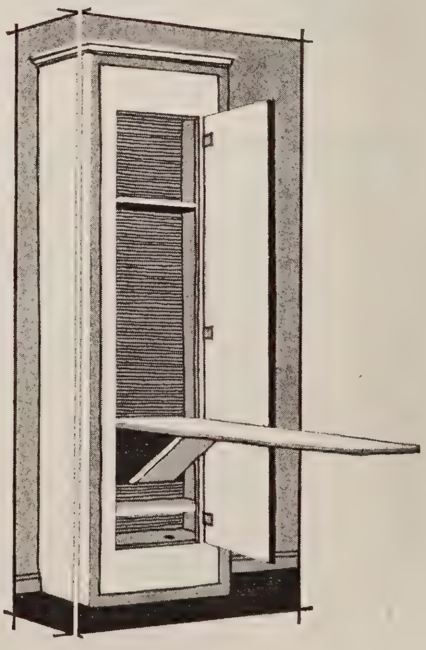


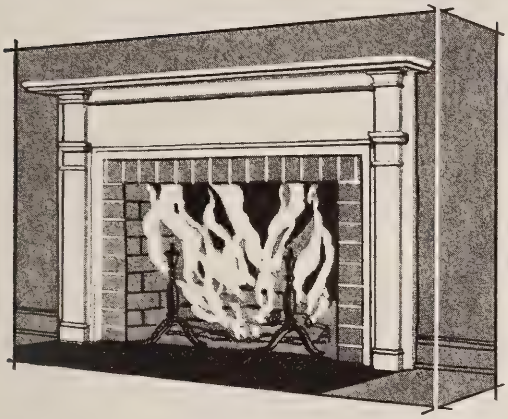
← **If there's a space 2 feet 4 inches wide available you may want to build in this commodious linen closet. Shelves are 2 feet deep and adjustable**



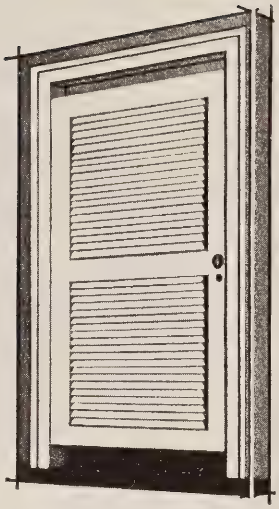
↑ **In this graceful dining-room cupboard shelves align with the muntins. Its Early American feeling blends well with Eighteenth-Century English furniture**

This ironing-board compartment takes only 2 feet width and 6 feet 8 inches in height to build it in. The board is adjustable between 30 and 34 inches in height above floor →

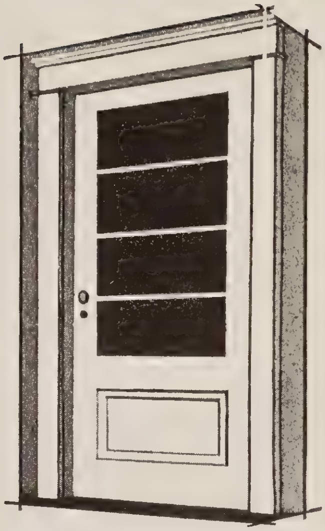




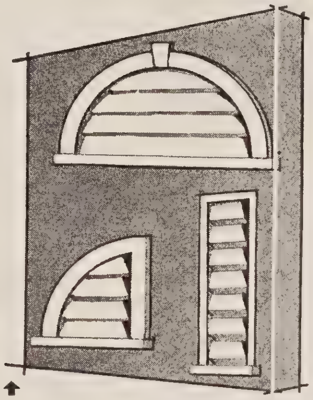
In a new line of quality-designed mantels this Colonial model combines the utmost in proportion with beauty of moulding details



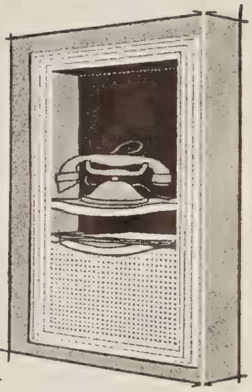
On hot nights you can enjoy both privacy and a passing breeze with this slat-door for bedroom or front entrance



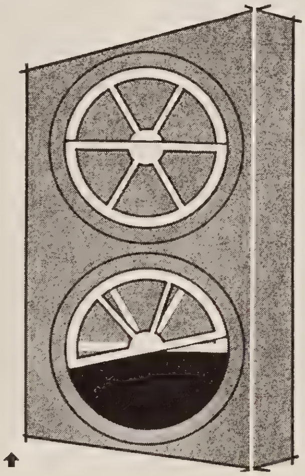
At no extra expense the house in the contemporary manner can now have horizontal muntins only



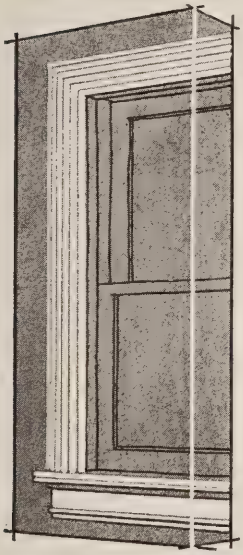
Ventilation in dead roof spaces can save the cost of a new roof, so if yours has need of a louver or two, pick out whichever of these three stock patterns will look the best—and order



Reeded trim for the phone cabinet lends classic distinction

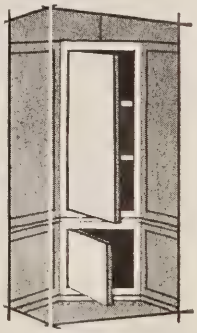


To date the difficulty with circular sash has been to open them; in this the lower half slides on a zinc weather strip. Shown closed, above, and open

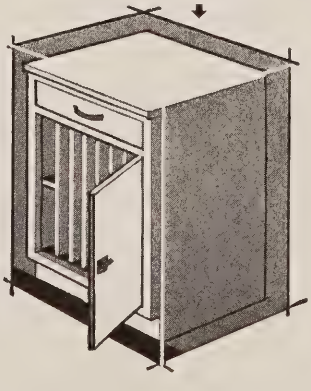


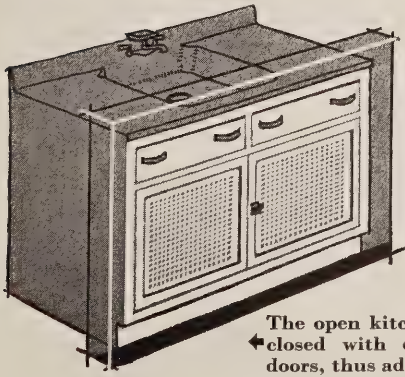
←Curved and reeded trim harks back to Regency, but suits almost all styles, even Modern

Where upper kitchen cabinets make a turn, a corner cupboard→ makes more shelf space usable

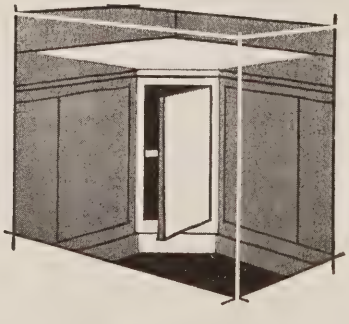


If your family likes buffet meals on a tray, or snacks outdoors, the trays can handily be stored in this model platter cupboard





The open kitchen sink can be inclosed with drawers and grille-doors, thus adding to utensil space



Corner cupboards are necessary for base units where these make a right-angle turn

Fireplaces

Who is it that doesn't like a fireplace?

HERE ARE SOME fireplace ideas, in pictures, for your new home. The pictures speak for themselves. And keep in mind that fireplaces can be good circulating room-heaters, too. Circulating units, to utilize the heat which ordinarily goes up the chimney, are available for building in—out of sight.

Mattie Edwards Hewitt

This carefully designed unit fits well into the fastidious charm of its living-room—as a fireplace should. Ask your architect's advice about fireplace design and handling. It can be distinctive

Paul J. Weber

← This one spells Man, and its rustic demeanor should make it a popular style for cabin, library, or recreation room

Set off in a background → of wood, this rather simple brick fireplace is a popular type. Owner: Miss Helen Vogt, Seattle

Burton T. Grinnell

Heatilator Co.

← Fireplaces can supply an esthetic note, and they can also fully heat a room. Note heated-air grille at left of fireplace here. Cold air enters at lower grille, just visible behind chair

Hedrich-Blessing

A fireplace for a more livable room—natural brick standing out in bright contrast to a formal white mantel and walls

Novel, but interesting, is this fireplace in a comfortably masculine library which has pine-paneled walls

W. P. Woodcock

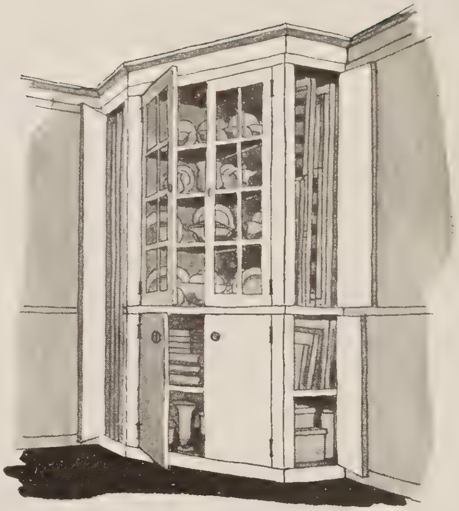
As strikingly beautiful a fireplace as you've ever seen is this one, which has been handled in a quite Modern manner

Hedrich-Blessing

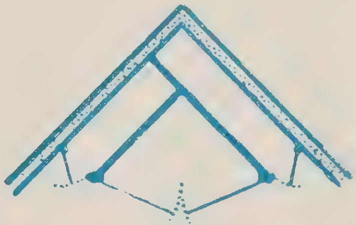
Closets

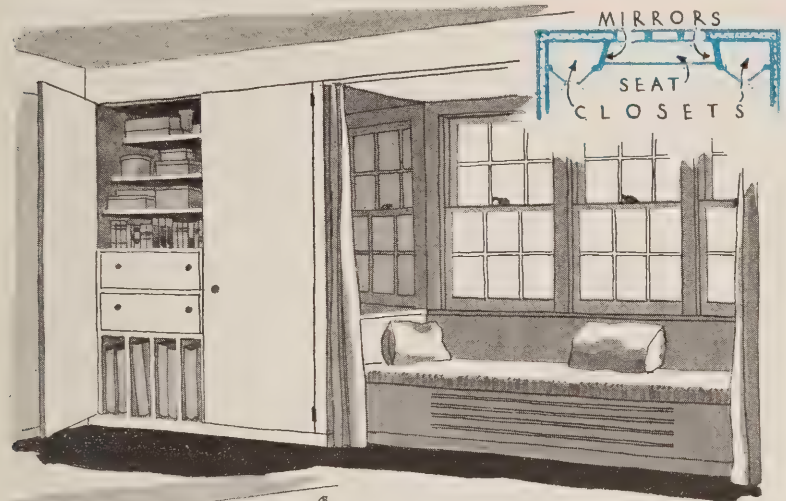
A house is no more convenient than its closets, so in building a home don't skimp on them

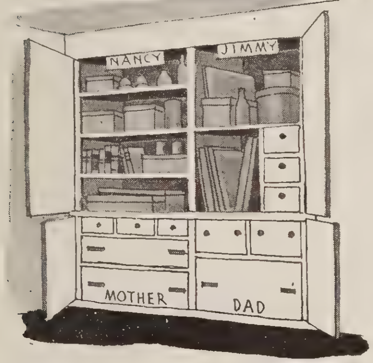
DISORDER and dismay might forever dog your days. It isn't a *living* room if there can't be games and entertainment one hour and order the next. And it takes closets conveniently located to make it easy to play games and clear them away. You can't take up any sport without having a generous closet in the rear entry, garage, or basement as insulation against outdoor soil. The accompanying sketches salvage waste space in new building or remodeling. Materials aren't expensive; wallboard, plaster-board, or plywood for walls; stock doors, trim, and lumber for shelves and drawers; stock shoe racks, hat-holders, and mirrors. Add these together and you have a home greater in living value than you anticipated. No house ever had too many closets.



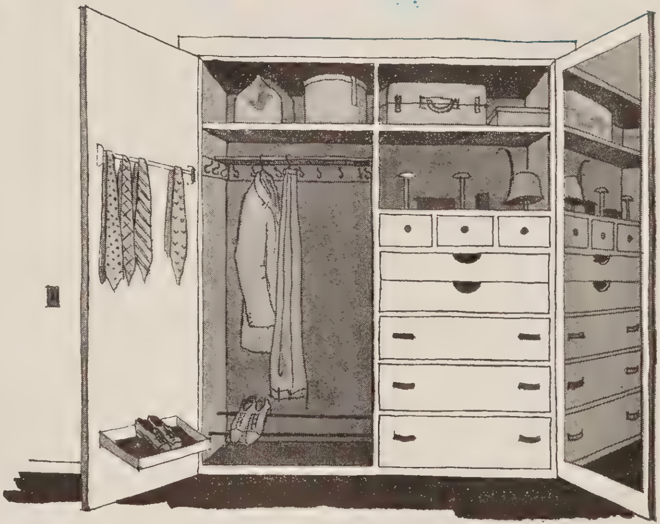
The corner cupboard is as ancient an idea as it is a sound one. A new version of it is shown above, in that the corner cupboard proper has been brought forward so that there may be space between it and the walls of the room. Narrow doors (at right angles to the walls of the room) give access to space which can be used for extra table leaves, folding game tables, folding chairs, and the other flat-shape equipment and games which keep a good party from going "flat"



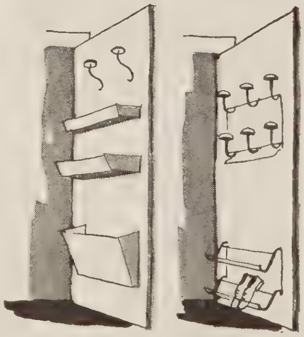


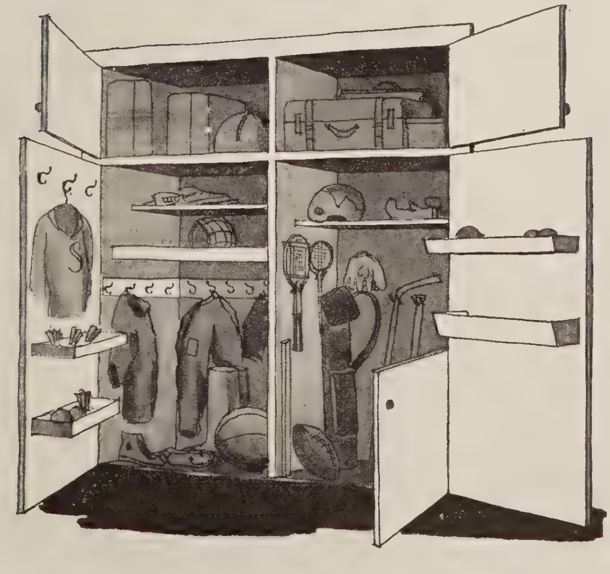


The end of a living-room often gains in appearance and usefulness if there's a cushioned seat beneath the windows and a closet in each corner. If the sides of the closet adjacent to the windows are splayed at an angle and fitted with mirrors, the happy result simulates a bay. The closets should be fitted according to the needs of the household, perhaps being divided into one section for each member of the family, as shown in the alternate sketch to the left



The average bedroom closet for years has consisted only of a shelf, pole, and row of hooks. You deserve shoe racks, hat-holders, a full-length mirror on the inside of the door, and plenty of drawers (with glass fronts if you like) and trays. As alternate suggestions for inside of doors, some possibilities are shown at right →

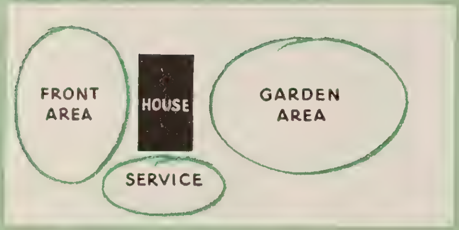




← A generous, easy-come easy-go closet near the rear door will save work in cleaning up after Olympic warriors, and save time and tempers in knowing where wanted articles are. Suggested are provisions such as separate upper compartments for luggage, trays on the inside of lower doors, and a low, hinged inner door to keep bats and golf clubs from falling forward

Landscaping

Landscaping your home grounds is as simple as planning your kitchen or arranging your furniture



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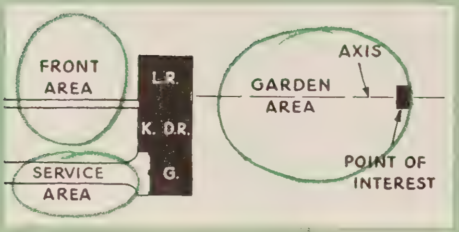

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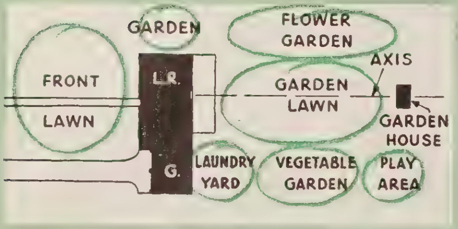

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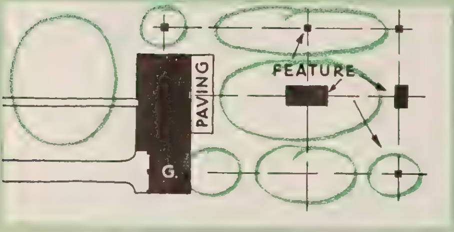

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THERE'S no mystery or metaphysics about planning your home grounds. Anybody who says there is is spoofing. Planning is merely arranging—like arranging furniture in your house.

You simply arrange the garden, lawn, play yard, house, garage, and laundry yard in the most convenient, efficient, best-looking way, then tie them all together in a unit. And there's good reason: *to get full enjoyment out of your property.*

You paid money for it. Not to make that investment pay its highest dividends thru good landscape planning is pretty wasteful.

And so, to plan your place, imagine yourself up in an airplane looking down, seeing everything at one time, how the garage down on one side of the house relates to the flower garden on the other side, and all that. If your place is typical at all, you'll see something like you see here in Drawing **1**.

1: Your home grounds are composed of three main areas, as in Drawing 1: front area, service area, and garden area. No matter how large or small your property, you'll always have these three.

The *front area* is merely a green foreground for your house. With today's traffic slam-banging by, it has no privacy, isn't a living area. It should be only large enough to form a setting for the house. It should be unembellished except by well-chosen shade trees and restrained foundation planting.

The *service area* is the garage and kitchen area—the area of the basement door, the coal chute, and the laundry yard. Because it's purely utilitarian, it ought to be as small and inconspicuous as possible and still fulfill its purpose.

The *garden area* is the outdoor living-room. Obviously, it should provide privacy, should be as large as possible in proportion to the other areas, and should be located so it's easily entered from the living portion of the house and is actually a part of the house.

2: The arrangement shown here is quite good, for the service area is relatively small, the garden or outdoor-living-room area large.

A garden ought to be placed so that its relation to the house is obvious. It ought to be located so as to be in line with some important door or window or other feature of the house, and not appear to be set down crookedly without any relation to anything.

So, from the main living-room window, a dotted line thru the middle of the garden area is called an axis. *An axis is an imaginary line which indicates a view, a line of vision,* about which the garden centers.

If you can look out of an important window or door of the house and get this view, the garden and house are tied together. If you can't, because of screening or distance, then the garden and house are separated, not a unit.

Since an axis connects, two things are involved: the start of the view and the end of the view. The house is the start, and the end is provided by some terminal point of interest—a gardenhouse at the rear of the garden, for example. This latter must have mass enough to hold attention. Usually it's backed by tall walls, hedges, or screen planting actually to end the view.

An axis can start at any door or window in the house. But as an outdoor living-room, the garden is more closely related to the living areas of the house than to the kitchen. It's therefore more logical to start the garden axis at a door or window in the living area.

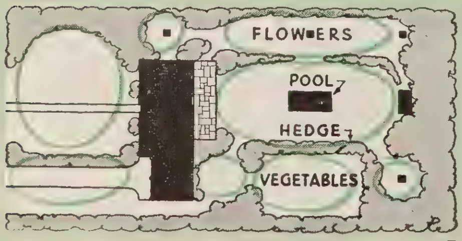
However, for a wife who does her own work, the axis might start at the kitchen door or window, especially if there's no better point in the house from which to view the garden.

In Drawing **2**, note, the axis crosses the garden near the center, so that a balanced pattern can be built upon it. This is called symmetrical arrangement. Symmetry is a sound principle to work on but not necessary so long as a feeling of balance is attained.

3: Now, unless you want only the simplest of gardens, you'll want to divide the main garden area in Drawing **2** into smaller areas—into a vegetable garden, a lawn area, a flower garden, and laundry and play areas. Your primary concern in locating the areas is their relation to the house. Arrange the elements of your garden as you'd arrange the rooms in a house or the work-units in a kitchen—logically, conveniently, the way you get the best views.

No matter how roughly you sketch, you can make these common-sense arrangements on paper. Inclose and designate the areas with oval lines. Think of these lines as representing beds, lawn areas, or masses of foliage.

In planning this area, examine your family. Will there be parties of high-school students that require a large living terrace or grassy area, or are the children more interested in sandboxes and playhouses? Is there a boy who wants a spot for tumbling bars, or a corner reached by a sneak path thru shrubbery borders, where he can build a G-man's lookout of old orange crates? Get this



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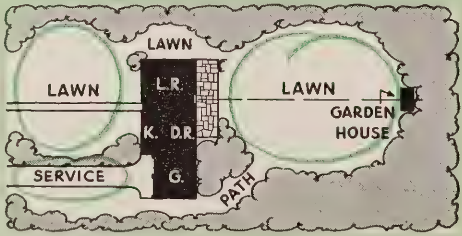

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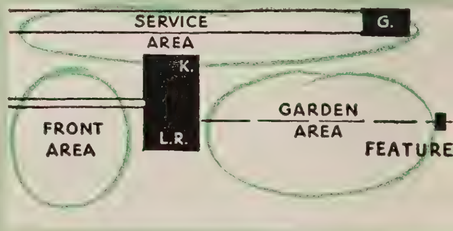

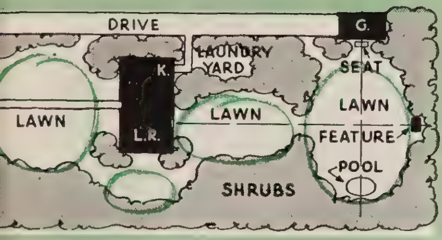

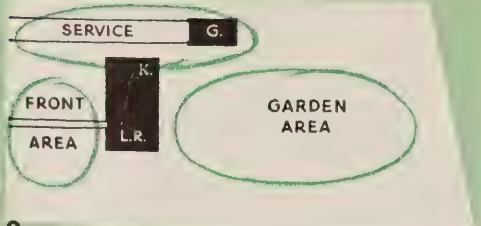

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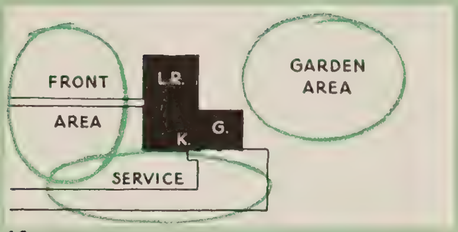


10

skeleton plan clearly in mind before you take the next step.

4: Now the next step is to tie together these garden areas we laid out in Drawing **3**. You want your garden to be a unit, not a group of entirely separated little gardens.

Two garden areas can be tied together as the garden itself is tied to the house—by an axis, a line of vision, between them. So in addition to the main axis down the center of the garden, put in some dotted lines to show the minor axes, these to tie the sections together.

In Drawing **4** two minor axes run parallel to the main axis, and three at right angles to it. Where some of these various axes intersect, locate features—such points of interest as sundials, pools, figures, and wellheads.

The whole key to ground-planning will be yours if you'll always think first of basic areas in your garden, then of axes to attach these areas to the house and to each other.

5: Next step is to make the ground plan look like a ground plan by sketching in the foliage over the oval lines inclosing the garden areas. This gives you the areas inclosed by shrubs and trees. It's essential that lawn areas be inclosed, because if you look out from the house along an axis and see neighboring buildings, flagpoles, and children, you can't concentrate on the garden. It's marred by outside distractions that ruin the beauty for which you are striving.

Note that along the minor axes, openings are left between areas for paths.

6: Here is a much simpler garden plan for the same grounds we began with in Drawing **2** and just finished laying out in **5**. It has only one area, one main axis. No one can justly criticize simplicity in garden-planning—not so long as it's effective.

A common idea of home-grounds planners is that, to be outstanding, landscape design must include marble fountains, balustraded walls, and imposing vistas. Scuttle the thought. It leads to pompous, fussy planning and straining effect. It makes the garden a disturbing, uneasy place. Simplicity and naturalness are far more satisfying.

7 and **8:** Now let's try a new house-and-garage arrangement—one less desirable than the one we began with in Drawing **2**, because the garage is so far back on the lot that much space is wasted in the service area.

First, in Drawing **7**, we'll circle the basic areas—the front, service, and garden areas—and put in the major axis.

Now, in Drawing **8**, we'll subdivide the garden area, put in the minor axis and features, and block in the foliage around the areas. Note how the poorly placed garage is utilized as a beginning for the cross axis in the garden at the rear, with a seat at one end, a pool at the other. The feature at the end of the main axis might be an attractive group of evergreens. This scheme is often good for deep lots.

9: Here is an improved house-and-garden arrangement over Drawing **7**. The garage is closer to the house, the size of the service area reduced. The lot, note, is irregular. Nevertheless, the same planning principles apply. Regardless of the shape of the lot, the first thing to decide on is the axis. Then the shapes of the various gardens are modified to fit the irregular lot.

10 and **11:** Here the garage is behind the house, the garage entrance on the side. Good on wide lots because it reserves most of the rear for the garden, this arrangement is bad on narrow lots because it makes getting into the garage difficult.

Lay out a plan for Drawing **10**, and you might get something like that shown in Drawing **11**. Or maybe there'd be no kitchen garden, and the lawn area would encompass that space.

12 and **13:** These two show what you might do when you must enter the garage from the rear. This arrangement is perhaps the least desirable of all from the garden standpoint because the back-around drive takes so much space from the garden.

14: Occasionally a house has service at both ends. This type isn't logically planned. With the kitchen far from the garage, the whole back of the house has to be given over to service. The living-room has only one window toward the garden, two toward the garage drive. Connecting the living-room and the garden is difficult because circulation between the kitchen and the garage crosses the view from the living-room.

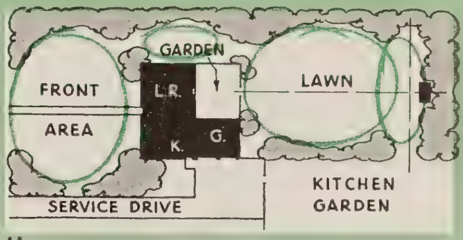
15: We've planned this garden from Drawing **14** with many errors to show you what to avoid. Outdoor areas here aren't related to the house. For example, the flower garden is on the opposite end of the house from the living-room. The vegetable garden is on the opposite end from the kitchen. Circulation from the kitchen to the laundry yard and vegetable garden must cross that from the living-room to the flower garden. None of the areas has any relation to the others.

To lay out a property this way is as bad as to have the kitchen stove far from a work-surface, the sink far from the cupboard. When, as in this sketch, there's no organization, shrub masses become meaningless scallops.

* * * *

By trial and error we can secure an attractive furniture arrangement. But the "trial and error" planning of the garden can't be carried out extensively, nor even practically.

Plan your grounds on paper. Arrange things in a common-sense, logical way. Tie them together with views from one to the other. Work out details of paths, hedges, and shrub masses. For when you've mastered the arrangement of these areas, and their axial connections, you've mastered the means of planning your home grounds.



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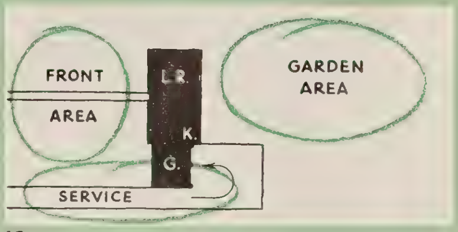

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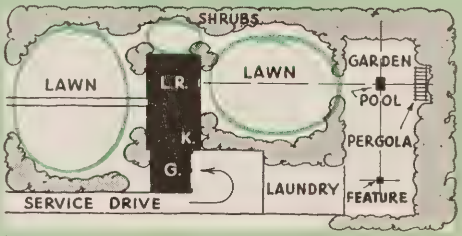

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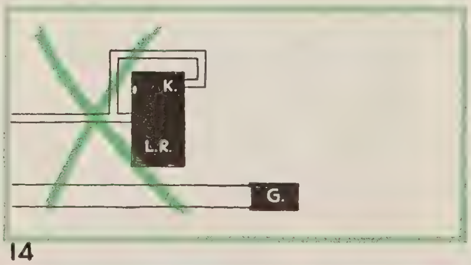

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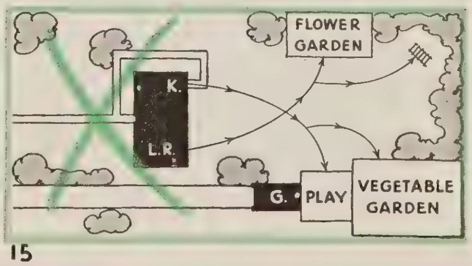

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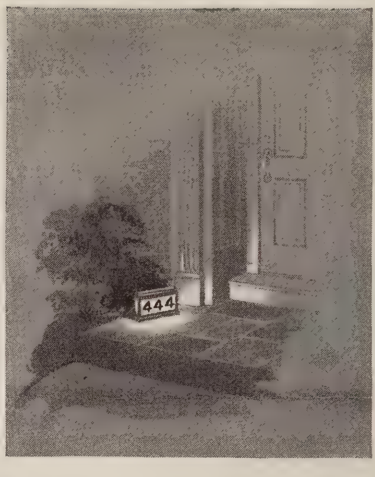
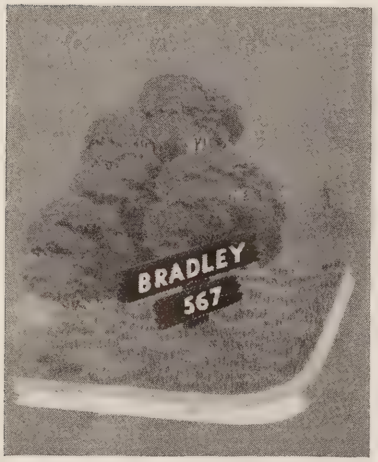
Identification

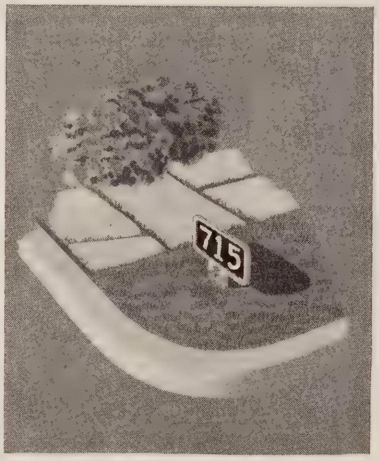
Give your home a distinctive and individual identifying "tag," easily seen night or day. Don't make your friends play hide-and-seek up and down the avenue

This internally lighted → number comes ready-made, or a handy man can make it. Numbers can be painted on frosted glass—or holes drilled in glass and brass numbers bolted on. You can also get similar units which get light by reflection and refraction from house or street illumination



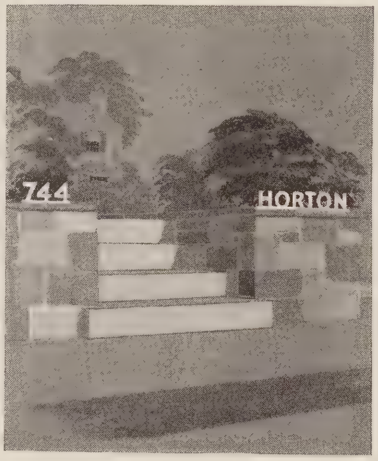


← Reflective "tags" are economical and brilliantly signal out the identification. Made of lucite or glass reflective buttons, they're available at your local stores, thru mail order houses, or by writing Dura Products Co., Canton, Ohio; Leroy J. Marks, 60 East 42nd Street, New York City; or Lewis & Conger, New York City, N. Y.

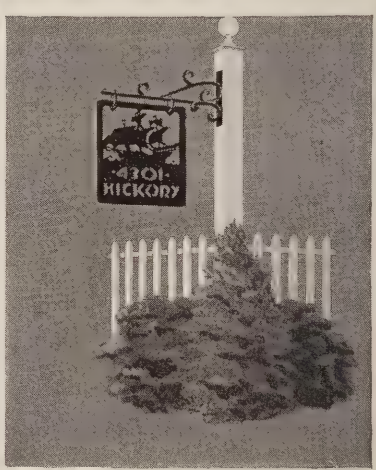


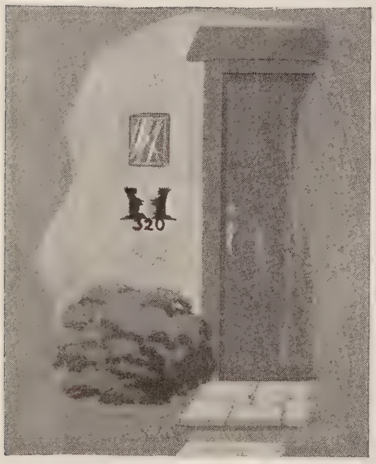
← For homes set well back, here's a parking number that reflects light day or night and can be read from both sides. Available in your local stores, or from North American Service Co., 311 North Des Plaines, Chicago, Ill.

This sort of identification → is cut from bright aluminum, chromium, or some non-rust alloy. We suggest you see your local tinsmith, or write Garret Thew, Westport, Connecticut

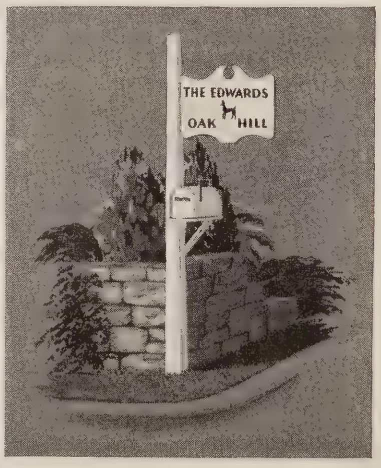


Your local metal worker → or handy man can jigsaw out a sign like this. One way is to lay a sheet of brass between 2 pieces of plywood, driving brads thru the waste to hold it in place while cutting. Another is to develop the design on paper, paste it to the brass, and then chisel and file out the design





← Scotty-lovers may like this one, made of 1/16-inch sheet iron, rubbed with steel wool and painted with two coats of flat black before mounting it below the entrance light



← Your ornamental-metal shop can cast your name on a slender metal strip and fasten it to a background of hard, smooth-surfaced, jigsawed fiber board which has been given 3 coats of white lacquer

Glass

Here are some ideas on glass in home construction—and how to get light where you need it

GARDENED homes of today feature more and larger windows, glass doors, even whole walls of glass.

A living-room treatment which is increasing in popularity is that of making the wall facing the terrace or garden entirely of sliding glass panels. Double sheets of glass sealed to inclose a dehydrated air space cut down heat loss and minimize condensation. Another insulation method employs a type of glass that stops infra-red (heat-bearing) rays. And Venetian blinds or shades give privacy. For the solarium and the conservatory, a type of glass permits ultra-violet rays to enter.

IN BATHROOM and kitchen walls, there are opaque-glass tiles which are set with a plastic cement. This adheres to both glass and background by suction, so it's very important that background be rigid, non-shrinking, and non-expanding. A masonry wall is ideal. If the wall is of wood-frame construction, a heavy coat of cement plaster over securely nailed metal lath should be applied to reduce chances for annoying imperfections later.

Because glass, unless of a special heat-resisting type, will soften or crack at a comparatively early stage of a fire, it may not be used to bear much structural load, tho it will carry itself as a curtain wall. This is important to know when considering some of the new glass brick. By all means use them if you like, but don't go beyond their capabilities. Glass bricks are available either in solid or hollow form—the hollow containing a 60 to 70 percent vacuum and having, therefore, some insulating value in this form.

KEEP in mind, however, that glass blocks aren't intended to replace windows. Think of them more as a wall material, to give you added light in all the places in your house where there is a crying need for it.

Modern designers prefer smooth, clean (and easily cleaned) surfaces, simple forms, and light. Where these qualities are sought, as in the following examples, glass is an obvious answer:

To catch a beam of sunlight coming in thru a window and throw it into a gloomy corner, use a well-placed mirror or mirror panel. You must be careful, tho, to avoid throwing the reflection at eye level.

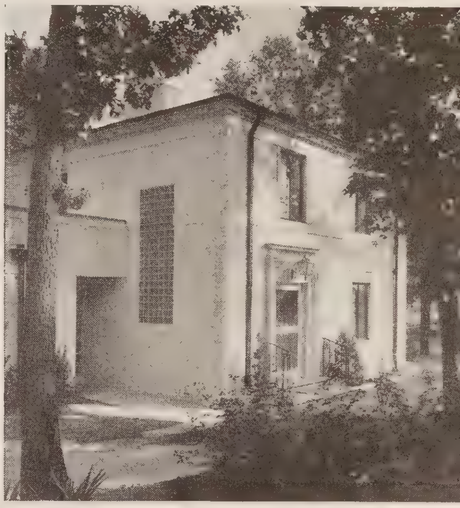
By reflecting a bit of garden or an attractive hilltop, a mirror panel may also be used for bringing cheerful color into a room. It will make the room seem more spacious and airy by thus providing double vistas. As lining for decorative niches, or for surfacing light-switch panels, mirrors give attractive results.

No longer is it necessary to block out an undesirable view with draperies or curtains on the windows, for glass block is ideal for this purpose, without sacrificing a bit of cheerful daylight. Large areas make ideal picture frames for decorative details.

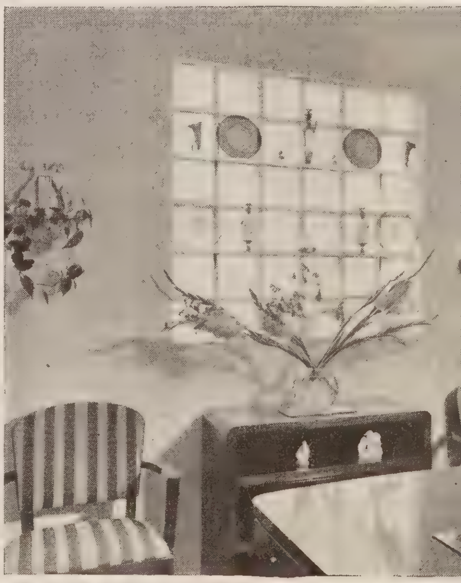
NOWHERE can it be said, "*Let there be light,*" more earnestly than on a stairway, where darkness is responsible for many an accident. Glass block inserted in the curve of a stairway, letting in a flood of well-diffused light without revealing what might be a drab view, is the perfect answer.

If you've planned a bedroom so that one wall will contain a closet door, a bathroom door, and a bit of space between, mirror all three of these surfaces. This provides a swanky adjustable dressing mirror (but be sure door swings the right way!). In bathrooms be generous with mirrors and mirror paneling. On built-in closet chests you may like the idea of clear glass drawer fronts for easily locating stored objects.

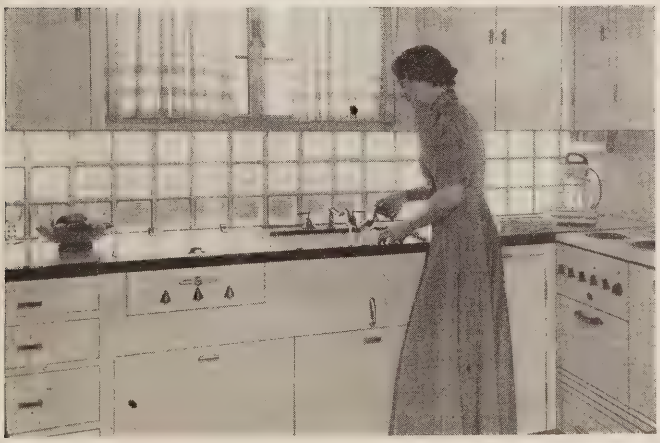
New decorative uses of the same basic material—glass—are strikingly illustrated in mirror, table, flowers, and bowl



This exterior view of a house in University City, Missouri, illustrates the utility and versatility of glass block. Here, for instance, on the north side glass block provides good light for entrance and stairway. Also, on the other side, likewise in the north wall, glass block lights kitchen and library-den while affording privacy ➡



For interior partitions glass block often serves to let light thru from a bright room into a dark one. For instance, this dining-room would be a dreary place for breakfast were it not for the slice of sunshine cut into the wall between it and the kitchen. Slender metal brackets in the joints provide for shelves and colorful, interesting ornaments ➡



⬅ **"Light where you need it" is very well illustrated in this kitchen picture. The window provides sight so necessary to contact with the cheerful out-of-doors, but the glass block gives light right at the level of the working area—around the sink, the top of the range, and the working table—where it's most needed. Preparing a meal in such bright surroundings is a pleasure**

Minimum Specifications for New Homes

Recommended by Better Homes & Gardens

ARTICLE I

Excavating and Grading

Section 1. The bottoms of all excavations shall be exactly level and all footings shall rest on solid, undisturbed earth. The top 12 inches of earth removed from the site shall be piled separately for the finish grading.

Section 2. When the walls are built to grade line, the contractor shall backfill against all walls both inside and outside with clean earth, well tamped and puddled.

Section 3. *Lines and Grades:* The property lines and main floor level will be established by the owner, and the contractor shall work accurately from these lines and grades.

ARTICLE II

Masonry Work

Section 1. All walls shall be built level and true. All brick shall be laid with truly shoved joints, completely filled with mortar. The contractor shall leave all openings and chases required for mechanical installations.

Section 2. When face brickwork is completed, the walls shall be thoroly cleaned with dilute muriatic acid and wire brushes, followed with clear water.

Section 3. *Bond:* All brickwork shall be bonded with full headers every sixth course.

Section 4. *Common Brick:* All common brick shall be No. 1 vitrified shale or hard-burned, stiff-mud bricks.

Section 5. *Mortar:* All brick and blocks shall be laid on mortar composed of 1 part Portland cement, 1 part well-seasoned lime putty, and 6 parts of clean, sharp sand.

Section 6. *Hollow Block:* Hollow block, where used or shown, shall be first-quality, hard-burned clay tile, or approved cinder blocks.

Section 7. *Chimneys:* Chimneys shall have head and cross joints filled full and smooth, lined with fire-clay flue tiles.

Section 8. *Brick Sills:* When shown, brick sills shall be set with a proper pitch, with joints full and well bedded.

Section 9. *Foundation Drain:* Lay 4-inch agricultural drain tile in a gravel bed with ¼" open joints covered with tar paper, around the basement wall, where shown, and connect same to sewer.

Section 10. *Fireplace:* Build as shown, with sides, back, and floor lined with split fire brick laid with thoroly filled joints. Furnish and build into each fireplace area approved cast-iron damper of proper size and ash dumps where shown.

Section 11. *Stone Work:* Furnish and set all steps, sills, ornamental panels, and the like of stone, where shown on drawings.

Section 12. *Concrete Work:* All cement used shall be first-class Portland cement of an approved brand, delivered in the original packages. Fine aggregate shall be clean, sharp sand, free from loam or other foreign matter. Coarse aggregate shall be hard, clean, washed gravel or approved crushed stone.

The mixing shall be done in an approved batch-machine mixer and shall continue until cement is thoroly distributed and the mass uniform in color. Forms shall be substantial and unyielding and shall be tight to prevent leakage. Concrete shall not be mixed in freezing weather without taking special precaution to prevent freezing until the concrete has set thoroly. All concrete shall be mixed in the proportion of one part cement, two parts sand, and four parts gravel. Topping for floors, steps, etc. shall be ¾" thick; shall be of 1 part cement to two parts sand; and shall be troweled to a hard, smooth surface.

Section 13. *Floors:* The cement floor in the basement and in driveways shall be reinforced with No. 11-gauge galvanized fence wire.

Section 14. *Platforms and Steps:* Platforms, steps, etc., where shown, are to be topped in the same way as noted for floors. Topping shall be applied continuously to avoid cracks between risers and treads.

ARTICLE III

Miscellaneous Iron and Steel

Section 1. *Painting:* All steel and iron shall before leaving the shop be cleaned of all scale, dirt, and rust, and be given one good coat of red lead and linseed oil, or appropriate paint.

Section 2. *Steel Lintels:* All openings in masonry walls to have proper size steel lintels if not otherwise shown.

Section 3. *Coal Chute:* Furnish and install, where shown, a steel coal chute of approved make, complete with inside locking device.

Section 4. *Clean-out Doors:* Furnish at the bottom of all chimney flues cast-iron clean-out doors of size noted.

Section 5. *Joist Anchors:* Furnish to carpenter, if shown, standard steel-joist anchors for every fourth joist.

Section 6. *Steel Beams, Columns, Etc.:* If structural-steel members are shown in the construction, all such items shall conform to the standards of the American Society for Building Materials.

Section 7. *Steel Sash:* Steel sash, if shown on the drawing, shall conform to the specifications of the manufacturers selected.

Section 8. *Miscellaneous Items:* The contractor shall furnish and install all other items, such as wrought-iron grills, package receivers, house numbers, and the like, as indicated in the drawings.

ARTICLE IV

Sheet Metal Work

Section 1. *Materials:* If galvanized iron is used, all sheet metal shall have an ingot-iron base, guaranteed 99 percent pure, and be of an approved make. All solder shall be best grade, one-half tin and one-half lead. Use killed acid as a flux. If copper is used, it shall be of standard grade, 16 ounce. If lead is used, it shall be 2½ or 3 lb. hard lead. Use resin as a flux or resin core solder.

Section 2. *Flashings:* Set flashings and counter flashings of 26 gauge galvanized iron, 16 ounce copper, or 2½ or 3 lb. hard lead at all intersections of vertical walls and roof, at chimneys, dormers, and the like.

Section 3. *Roof Valleys:* All valleys shall be lined with metal strip extending 8 inches under roofing on each side.

Section 4. *Gutters:* All gutters shall be 5" half round, of (1) No. 26-gauge galvanized iron, or (2) 16-ounce copper, as selected with rolled edge, secured every 4 feet with malleable-iron hangers.

Section 5. *Conductors:* Conductor pipes shall be of (1) square, or (2) round sections as selected, of (*a*) No. 26-gauge galvanized iron, or (*b*) 16-ounce hard copper, secured to walls with approved bands of the same metal. Rivet and solder conductors to gutters.

Section 6. *Miscellaneous Work:* Furnish and install all other items shown on the drawings of the weights of sheet metal shown, such as clothes chutes, flower-box linings, stove hoods, etc.

Additional Items. *Metal Shingles:* Provide carpenter with required metal soakers for hips, of (1) 16 ounce copper, (2) 26 gauge galvanized iron, (3) 2½ lb. hard sheet lead.

ARTICLE V

Carpentry, Millwork, and Roofing

Section 1. No finished woodwork or finished flooring is to be put in place or stored in the building until the plastering is finished and thoroly dry.

Section 2. *Dimension Lumber:* Unless otherwise specified, all dimension lumber shall be No. 1 yellow pine or Douglas fir. All lumber shall be straight and free from defects that will weaken the stick.

Section 3. *Wood Joists:* Joists shall be spaced on not more than 16-inch centers and shall be properly framed around chimney, stair wells, and other necessary places. Trimmers and headers, where not shown otherwise, are to be double joists well spiked together. Joists shall be size shown on drawings and crowned, leveled, and bridged, unless otherwise specified, every 7′ with 1 x 3 cross-bridging double-nailed at each end. All cutting and framing of joists for pipes shall be done by this contractor in such a way as not to weaken the floor construction. Double-joint under all partitions.

Section 4. *Roof-Framing:* Roof rafters shall be of size shown, spaced and framed as indicated on drawing. Cover roof with No. 2—6" sheathing laid tight and double-nailed at crossing of every rafter.

Section 5. *Exterior Walls:* Wood sheathing, when laid diagonally on exterior walls, shall be applied at approximately 45 degrees, and extend in opposite directions on each side adjoining at the corner, and corner bracing will not be required.

In all cases, except where diagonal wood sheathing is used, all external corners shall have diagonal 1- x 4-inch braces let into the outside face of the studs at approximately 45 degrees and, wherever possible, shall extend from sill to plate. Braces shall be securely nailed to each stud, and to sill and plate. When openings occur near the corners, 1- x 4-inch knee braces let into the face of the studs shall be installed above and below the openings at approximately 45 degrees, extending across not less than 3 stud spaces.

All exterior sheathing to be covered with one layer of building paper before finish material is applied—rest of exterior as follows:

A. Exterior siding to be No. 1 (1) cypress, (2) white pine, (3) redwood, or (4) cedar of thickness and width called for on drawing.

B. Exterior shingles to be clear (1) cypress, (2) cedar, or (3) pine of length called for on drawing.

C. Exterior ornamental timberwork and brackets to be of (1) pine, (2) cypress, or (3) fir, all No. 1 material and according to details on drawings.

SECTION 6. *Insulation:* Furnish and install in accordance with manufacturer's specifications, all insulation of (1) fiber board, (2) quilt, (3) loose fill, (4) bat, or (5) reflective foil for side walls and ceilings as indicated on drawings.

SECTION 7. *Roofing:* Furnish and apply (1) wood shingles, (2) asbestos shingles, (3) asphalt shingles, (4) slate shingles, or (5) tile shingles strictly in accordance with manufacturer's directions. Before applying roof, lay one layer of waterproof paper on top of roof-sheathing, with all joints well lapped and nailed.

SECTION 8. *Partitions:* All studding partitions and outside walls shall be constructed as shown 2 x 4 or 2 x 6, with plates well spiked 16″ C.C. Cut 1 x 6 ribbons in studding for supporting joist. Double studding around all openings, at all corners. Properly truss across all openings.

SECTION 9. *Wood Floors:* Subfloor—Joist shall be floored unless otherwise specified with No. 2—6″ sheathing laid close and double-nailed at each joist. Finished wood floors shall be hard or soft wood as noted in Room Finish Schedule. Between all finished wood floors and subfloors provide a single layer of building paper. All flooring shall be well drawn together, joints broken and sanded, ready to receive finish as specified in painting.

SECTION 10. *Weather Strips:* Furnish and install spring bronze or zinc weather strips complete with interlocking sills for all exterior doors and windows.

SECTION 11. *Caulking:* All exterior doors and window frames set in masonry shall be caulked thoroly between brick mould and masonry jamb with approved standard brand of caulking paste.

SECTION 12. *Wood Door and Window Frames:* The parts of the frames exposed outside shall be made of clear face Ponderosa or white pine. Pulley stiles to be ⅞″ thick and to have pockets for access to weights. Frame to be complete with blind stop, beads, sills, casings, and pulleys, all as shown on drawing.

SECTION 13. *Wood Sash:* All exterior sash shall be 1⅜″ thick unless otherwise indicated, made of kiln-dried white or Ponderosa pine. All shall be mortised and tenoned and divided as shown on drawing.

SECTION 14. *Doors:* All doors to be sandpapered, scraped, and hand-smoothed. For size, thickness, and design, see drawings. Interior doors in finish rooms to be veneered, using waterproof glue, both sides to match trim of room.

SECTION 15. *Stairs:* Stairs to have ⅞-inch risers and 1⅛-inch treads, well supported on 2 x 10 horses 16 inch C.C., all as detailed on drawings. Main stairways shall have not less than 6 feet 8 inches continuous clear headroom measured vertically from the front edge of the tread to a line parallel to the stair run.

SECTION 16. *Medicine Cabinet:* Build in toilet and bathroom medicine cabinets of (1) wood, or (2) steel.

SECTION 17. *Screens:* Furnish and fit for all exterior windows and doors, full screens as follows: (1) Frames 1⅛″ thick of white pine or cypress with mortise and tenon joints. All netting shall be best copper wire applied with tacks and covered with mould. (2) Rolling screens of selected type shall be provided and installed in accordance with manufacturer's instructions.

SECTION 18. *Storm Sash and Door:* Furnish and fit for all exterior windows and doors storm sash and doors, 1⅛″ thick, glassed with D.S.A. glass. Doors to match entrance doors of house.

ARTICLE VI

Lath and Plaster

SECTION 1. *Lath:* (*a*) Wood lath: Lath on all wood joists and partitions, except as otherwise specified, to be No. 1 (1) white pine, (2) cypress, or (3) fir free from bark, sap, or loose knots and well nailed in place. Contractor is to fur around all exposed sewer, waste-water, and electric pipes where necessary.

(*b*) Metal lath shall be of pure iron, expanded sheet stock, weighing not less than 3 pounds per square yard after expansion. It shall be of Toncan Metalor equal and be coated with a good protective paint.

(*c*) Composition lath shall be applied strictly according to manufacturer's directions, with all joints broken and well nailed.

Lath at all angles in walls and ceiling, at junctions of different materials, where plastered, with a strip of lath 6″ wide by length required.

SECTION 2. *Metal Corner Bead:* All interior exposed corners opening with plaster jambs shall be protected by metal corner beads well secured, straight plumb, and finishing at exact line before plaster is applied.

SECTION 3. *Plaster:* The plaster shall be in approved brand of first-quality, fresh, hard wall plaster. All plaster shall be mixed in strict accordance with the manufacturer's printed specifications. On dry, hot, windy days, plastering shall be protected by closing up openings until plaster has set, and plaster which has frozen will not be accepted.

SECTION 4. *Sand:* Use only clean, dry, sharp sand, free from loam, dirt, or frost.

SECTION 5. *Applying:* On wood or composition lath, if lath is dry, soak thoroly several hours before applying the plaster. Apply with sufficient pressure to obtain a good key. Darby lightly and use water sparingly. On metal lath apply a scratch coat, lightly covering the lath and filling meshes. After the scratch coat is set firm and hard, apply the second coat. Bring it to straight and even surface with rod and darby (plasterers' tools) ready to receive the finishing coat.

SECTION 6. *Finish Coat:* (1) Trowel finish shall be used where called for in specifications. It shall be of hard wall plaster thoroly gauged with perfectly slaked lime putty and troweled to a hard-polish surface. The finish coat shall be applied when the browning has dried.

(2) Sand finish shall be used where called for in the specifications. It shall be unfibered wall plaster thoroly mixed with sharp sand run thru No. 12 screen in proportion, floated with carpet floats to a true and even finish.

(3) Keene's cement finish shall be used where called for in specifications. It shall be Keene's cement and sand mixed in proper proportions with lime putty, and troweled and marked as shown on drawings.

SECTION 7. *Exterior Plaster:* All exterior walls where shown shall be plastered with three coats of cement stucco on approved lath base applied over the wall-sheathing. This product shall be applied in strict accordance with the manufacturer's specifications. The finish coat shall be of color selected, and the texture shall be as selected.

SECTION 8. *Patching:* After all other mechanics have finished their work, point up and patch all broken plastering. Point up around trim and other set work and leave all in complete and perfect condition.

ARTICLE VII

Painting and Finishing

SECTION 1. *Character of the Work:* All finished surfaces shall be left smooth, even, and free from any defects. All brush work shall show even coatings free from brush marks. No paint shall be applied to wet or damp surfaces, or before undercoat is dry. All nail holes shall be puttied after priming, and each coat of paint or varnish on woodwork shall be sandpapered.

SECTION 2. *Prepared Paints:* All paints shall be white lead and oil or the highest quality prepared paint of reputable manufacturers, delivered to the building in original packages. All varnishes and stains shall be approved brands.

SECTION 3. *Colors:* All colors shall be selected by the owner, and samples submitted before starting the work.

SECTION 4. *Preparation of Surfaces:* All rust, grease, and erection marks shall be removed from surfaces to be painted, and all woodwork shall be sandpapered before starting work.

SECTION 5. *Priming:* All millwork shall receive prime coat before or after installation. Exterior work shall be primed immediately after erection. When wood siding is used, seal ends before erection.

SECTION 6. *Sheet Metal Painting:* All sheet metal work, except copper, shall be painted with one heavy coat of lead and oil before erection and two coats of the same material after being set in place.

SECTION 7. *Exterior Painting:* All exterior woodwork shall receive not fewer than 3 coats of paint, including the prime coat, except wood shingles and half timberwork, which may receive 2 coats of stain or penetrating oil. Prepared paints furnished by reliable manufacturers especially for this purpose, or white lead and oil, may be used.

Two-coat work may be used in lieu of the above, provided that the paint used is white lead and oil or a prepared paint manufactured especially for two-coat work. The paint shall be applied according to the manufacturer's instructions.

In the case of a prepared paint, the prime coat shall be thinned to brushing consistency with turpentine or other thinner recommended by the manufacturer. The second coat and last coat shall be thinned with not more than 1 pint of recommended thinner to the gallon of paint.

Exterior porch floors, steps of wood, porch decks, and other horizontal surfaces subject to the weather shall be painted 3 coats of porch floor enamel, the first coat thinned with turpentine, and the second and third coats as delivered by the manufacturer.

Section 8. *Interior Painting:* Where called for on Room Finish Schedules, all surfaces shall be painted with two or three coats of white lead and oil, or highest-quality prepared paint. The finish coat shall be either flat or semi-gloss. When three coats are scheduled, the last coat shall be brush-stippled to a uniform finish.

Where preservative and glazed work is scheduled, the glaze coat shall be of color directed, composed of the following materials: 1 part linseed oil, 3 parts turpentine, 2 parts whiting per gallon.

The preservative shall be composed of proper proportions of starch, buttermilk, and water.

Where enamelwork is scheduled, apply one coat of undercoater slightly reduced, one coat of undercoater without thinning, and 2 coats of enamel tinted as desired. The last coat shall have an eggshell finish.

Section 9. *Wood Finishes:* When stained and waxed finishes are specified, woodwork shall be filled with an approved paste filler, mixed evenly with oil stain, well rubbed in and allowed to set until the gloss leaves it. Then clean and sandpaper lightly. Apply one coat of white shellac and cover with approved floor wax as directed. When stained and varnished work is specified, fill, stain, and shellac as above, then apply one coat of heavy-body varnish, sand lightly with No. 00 sandpaper, and apply one coat of flat varnish. For work exposed to water or sunlight, apply an extra coat of varnish.

Section 10. *Tilework:* The work done under this section shall include all tile flooring, base, and wainscot, as specified. Tiles shall be set on a concrete base, a mortar of 1 part Portland cement to 3 parts sand; joints shall be filled with clear cement, and woodwork cleaned.

Floors shall be of size selected, (1) glazed or (2) unglazed tile recommended by the manufacturer.

Base and wainscot shall be of size selected in enameled tile in (1) bright or (2) mat finish. Cap and corning member, if shown, shall be of shape and color selected by owner.

Section 11. All window and door glass shall be (1) flat drawn, single strength, "A" quality, (2) double strength, "A" quality, or (3) ⅛″ plate. All mirrors in doors or elsewhere shall be copper-baked plate glass. All glazing of steel sash shall be done with putty especially manufactured for the purpose and guaranteed accordingly.

ARTICLE VIII

Electric Wiring

Section 1. *Work Required:* The installation of all electrical work including equipment shall comply with all laws applying to electrical installations in effect in the local community, or with the regulations of the National Electrical Code in the absence of such laws, and with the regulations of the electric utility company in the locality.

After completion of the work, evidence shall be furnished showing compliance with such laws and regulations.

All materials used shall be new and shall conform to the standards established by the Underwriters' Laboratories, Inc.

Service: Wires from the outside service connection to the distribution panel shall be No. 8 gauge or larger.

Branch Circuits: Minimum wire size shall be No. 14 gauge. Where the distance from the distribution panel to the outlets is great, or where any outlet or series of outlets on a circuit is likely to cause an excessive load, No. 12-gauge wire or a size adequate for the load to be carried shall be installed.

All convenience outlets located in kitchen, pantry, breakfast room, dining-room, and laundry shall be wired with not smaller than No. 12-gauge wire.

Appliance Circuits: Where electric ranges, heaters, oil burners, stokers, or other "heavy-duty" equipment is to be installed, wire shall be of adequate size for the load to be carried, with no reduction in size between the appliance and the distribution panel, and not less than as specified in the following table:

Table of Heavy-Duty Appliances

Kind of Appliance	Number of Wires	Minimum Size of Wire
Range	3	No. 6
Heater	2	No. 10
Oil burner or stoker	2	No. 12
Other small motors	2	No. 12

Section 2. *Switches:* Switches shall be provided where shown, either single-pole, three-way, or four-way as required.

Section 3. *Wall Receptacles:* All receptacles shall be of standard make, composition body, double T slot, flush duplex construction.

Section 4. *Plates:* All switches and wall receptacles shall be covered with stamped brass standard plate. When switches are grouped, furnish gang plates.

Section 5. *Panel Board, Cabinets, and So On:* Provide residence-type panel board with necessary lugs and plug-fuse connections mounted in a steel cabinet. Or, provide either in a central steel panel box or singly at convenient locations thruout the structure, fuseless automatic circuit breakers, one to each circuit to provide automatic breaking of the electric circuit when overloads occur. Provide all meter settings as required by local power companies with neatly finished board to receive meters.

Section 6. *Service Connections:* Bring in electric service from point designated by the local service company and provide main cut-off switch, mounted on slate base, in an approved steel cabinet.

Section 7. *Fixtures:* Install all fixtures, which shall be provided by the owner.

Section 8. *Signal Systems:* Provide and install, if shown on plans, approved weatherproof push buttons at entrance doors, electric buzzers, transformer, and wiring required for the system.

ARTICLE IX

Heating

Section 1. The contractor shall furnish and install a complete heating system of the following type: (1) hot air, (2) hot water, (3) vapor, or (4) steam. The system shall be guaranteed to heat the building to a uniform temperature of 70 degrees F. at an outside temperature of........degrees below zero. (Insert here a description of heating unit, distribution system, thermostats, etc.):

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ARTICLE X

Plumbing

The plumbing installation must comply with the plumbing code requirements where plumbing codes exist.

Section 1. *House Sewer:* Secure all necessary permits and furnish excavating and material necessary to connect house with main sewer or septic tank.

House sewer shall be extra heavy cast-iron bell and spigot pipe. All joints in cast-iron pipe within and outside of building shall be firmly packed with picked oakum or hemp and secured with molten lead. At least 1 inch in depth of fine, soft, virgin pig lead shall be used in each joint.

Interior plumbing systems of soil, waste, and vent pipe shall be of cast iron and lead.

Section 2. *Clean-outs:* Furnish and install clean-outs in the house-draining system at the end of each horizontal run, at each branch connection, and at the base of all vertical waste and drain pipe. Clean-outs shall be of same size as pipes they serve.

Section 3. *Vents.* Each fixture trap shall be individually vented and where possible tied into main vent stack at least 3 feet above highest fixture connection.

All vent stacks shall be carried thru the roof and flashed with lead.

Section 4. *Water-Supply System:* The water service from city main to basement shall be (1) copper tubing, (2) wrought-iron pipe, (3) cast-iron pipe, or (4) lead pipe. All hot- and cold-water circulation piping shall be galvanized, wrought or steel, or brass pipe or copper tubing. Exposed pipe and fittings used in connection with fixtures shall be chromium-plated brass pipe.

Section 5. *Hot-Water Supply:* Furnish and install, as selected, hot-water heater with storage tank having capacity of not less than 30 gallons. For each additional bathroom this capacity shall be increased 10 gallons.

Section 6. *Gas Piping:* All gas piping shall be standard black steel pipe and nipples. Connection to be provided where directed.

All gas-fired house heaters and built-in units shall be connected to flues constructed of masonry or concrete with not less than 20-gauge corrosion-resisting sheet metal properly insulated with asbestos. Such flues shall extend thru the roof. Gas-burning hot-water heaters shall have vents which may connect into the house heating flue, provided the connection is below the breeching.

Section 7. *Fixtures:* Furnish and install all plumbing fixtures as indicated and selected by owner.

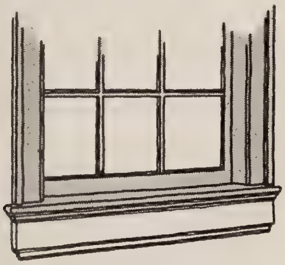
Building Terms

To help you in visiting with architect, builder, or lumberman, here are given the building and remodeling terms commonly used in the building profession and trades, with explanation and most common pronunciation

Abutment (uh-butt′-ment)—The solid part of a pier or wall serving as a support.

Aggregate (agg′-gre-get)—The mixture, as in concrete, of all the component materials.

Apron—A plain or moulded piece of finish placed below the stool of a window to cover the rough edge of the plastering.



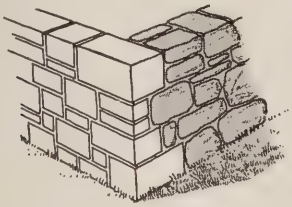
Arabesque (urr′-a-besk)—A species of ornament used for enriching flat surfaces. It may be either painted, inlaid in mosaic, or carved in low relief.

Arch—Construction of any material so arranged as to support itself by mutual pressure and also capable of sustaining any superincumbent weight.

Architrave (arr′-ki-trave)—The lowest division of the entablature.

Archivolt (arr′-ki-volt)—Mouldings on the face of an arch.

Ashlar (ash′-ler)—Hewn or squared stone as distinguished from that which is unhewn or rough as it comes from the quarry.



Astragal (as′-tra-gal)—A small semi-circular moulding or bead encircling a column below the capital. Also the moulded strip between double doors.

Backwater Valve—An automatic valve set in the sewer lateral to prevent sewage backing up into the cellar or plumbing fixtures during flood periods.

Baluster (bal′-uss-turr)—Small spindles or columns usually forming the main part of a railing.

Balustrade (bal′-uss-trade)—A range of small balusters supporting a coping or cornice and forming a parapet or inclosure.

Base—Also Baseboard. The board placed against the wall around a room next to the floor to finish properly between the floor and plaster.

Base Moulding—Placed immediately above the plinth of a wall, pillar, or pedestal.

Batten (batt′-n)—Small strips of boards used for various purposes, such as over the joints of sheathing to keep out the weather.

Batter (batt′-ter)—A term applied to walls which slope inward; that is, which are smaller at the top than at the bottom. Embankment walls usually are battered. On the other hand, walls which lean forward, or toward the onlooker, are said to overhang. (See sketch at right.)

Bay Window—Also BOW-window or COMPASS-window. A window forming a bay or recess in a room and projecting outward from the wall, either in a rectangular, polygonal, or semicircular form.

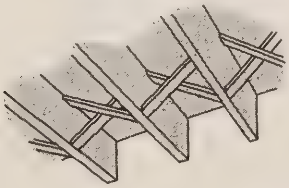
Beam—A term generally applied to the principal horizontal timbers of building, so placed as to support the load of the building. Beams may be of wood, steel, or other materials.

Brace—An inclined piece of timber used to form a triangle and thereby strengthen the framing.

Bracket—An ornamental projection from the face of a wall, generally used to support a shelf, etc.

Brick Veneer—Brick facing laid against frame or tile wall construction.

Bridging (bridge′-ing)—Small scantlings cut to proper length and nailed between floor joists and partition studs to stiffen the members.



Building Paper—Insulating paper applied between sheathing and the outer wall.

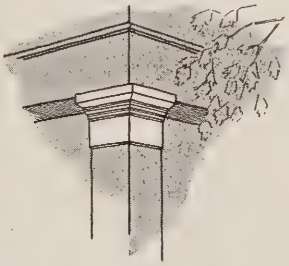
Butt-Joint—Where the ends of two pieces of timber or moulding butt together.

Buttress (butt-tress)—A projection from a wall to create additional strength and support.

Canopy—A projection over doors or windows to protect them from the weather.

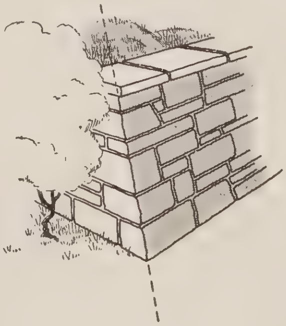
Cap—The upper member of a column, pilaster, door cornice, moulding, etc.

Capital—The top ornamental feature of a column or pilaster. (Sketch below.)



Casement—A frame of either wood or metal inclosing part or all of a window, which can be opened by means of hinges affixed to its vertical edge.

Cement Blocks—Blocks in which the principal component materials are cement and gravel, and which are formed into shape under pressure.



Chimney Pot—A pipe of earthenware or metal set on top of the chimney to improve its appearance.

Cinder Blocks—Same as cement blocks, except that the principal materials are cement and cinders.

Conduit (konn′-ditt)—A channel built to convey water or other fluids; a drain or sewer. In electrical work, for carrying wires as a protection and for safety.

Coping (kope′-ing)—Also "capping." The covering course of a wall or roof, usually sloping on its upper surface to throw off water.

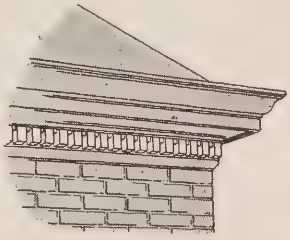
Cornice (korr′-niss)—The horizontal moulded projection encircling the top of a building, generally beneath the eaves of the roof.

Course—A continuous range of stone or brick of uniform height in the wall of a building.

Cricket (krick′-ett)—A watershed formed with sheet metal behind a chimney or other roof projection.

Damp-Proofing—Mixing into the foundation walls or painting the outside or inside foundation walls with a waterproofing material to prevent water seepage from the outside.

Dentils (denn′-tills)—Small blocks forming an ornamental row in a cornice.



Dormer (dorr′-murr)—A window pierced thru a sloping roof and placed in a small gable which rises on the side of the roof.

Eaves—The lower part of the roof, hanging over the side walls.

Engaged Column—A vertical feature in the shape and form of a round column, only a portion of which projects from the walls and supports the entablature.

Entablature (en-tabb′-la-ture)—That part of a building faced with horizontal mouldings, extending lengthwise above a series of columns or pilasters and comprising the architrave, frieze, and cornice.

Facade (fa-sodd′)—The whole exterior side of a building that can be seen at one view; the principal front.

Fascia (fash′-i-a)—A broad fillet, band, or face, used sometimes by itself, but usually in combinations with mouldings.

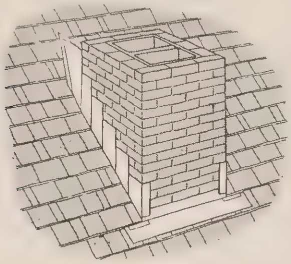
Field Tile—Porous tile placed around the outside of the foundation to absorb excess water and prevent its seeping thru the foundation walls.

[*Turn to next page*

Filet (fill′-ett)—Also Felet. A small, flat face or band used principally between mouldings to separate them from each other.

Flagging—Cut stone, slate, or marble used either in walks or for interior floors.

Flashings—Strips of metal worked into the joints so as to prevent leaking in roof valleys and around chimneys, dormers, and the like.



Flat Arch—The top of an opening formed by bricks or other materials, the bottoms of which are set in a horizontal line.

Footing—A projecting course of stone, cement, or other material placed under the foundation to give added stability.

Framing—All the rough timberwork of a house as distinguished from the Finish.

Frieze (freeze)—The middle division of the entablature.

Furring (furr′-ring)—Thin strips of board nailed on to level a surface for lathing or boarding, or to form an air space.

Gable (gay′-bl)—The upper part of the end wall of a building conforming to the slope of the roof against which it abuts.

Gargoyle (garr′-goil)—Also Gurgoyle. A projecting spout used to throw water from the gutter of a building off the wall. Sometimes perfectly plain, but usually carved into figures of animals which frequently are of grotesque design.

Girder (gurr′-durr)—A main beam which sustains the joints of a floor when the distance between the walls renders it necessary to give them additional support.

Glazing—The placing of glass in the frames of windows or French doors.

Grille (grill)—Literally, a grating of iron, but applied to open ironwork generally.

Grounds—Strips of wood nailed around door and window openings against which the plaster butts.

Gutter—Also Eavestrough. A shallow channel or conduit set below and along the eaves of the house to catch and carry off rain water from the roof.

Hanging Stile—The stile of a door to which the hinges are affixed.

Hardware: Finish—All exposed hardware in a house, such as door hinges, locks, clothes hangers, and so on.

Hardware: Rough—All concealed hardware, such as nails, spikes, and so on, used in the construction of the house.

Header—The large beam into which the common joists are framed around openings for stairs, chimneys, and so on.

Headway—Also Headroom. Clear space of height under the arch or over a stairway.

Hip Roof—A roof which rises by equally inclined planes from all four sides of the building.

Hips—The external angles formed by the meeting of the sloping sides of a roof.

Insulation (in-su-lay′-shun)—Any material, which, placed in the walls or floors or under the roof, will make the house cooler in summer and warmer in winter.

Jack Rafter—A short rafter fixed to the hips of a roof to give added support.

Jamb (jam)—The side post or lining of a doorway, window, or other opening.

Joints—The interstices between the stones or bricks in masonry and brickwork.

Joists—The horizontal timbers to which the boards of a floor or the laths of a ceiling are nailed. They rest on the outer walls or on girders.

Keystone—The central stone at the top of an arch.

Lattice (latt′-is)—Any network formed by crossing strips of wood or metal.

Lavatory (lav′-a-tori)—A basin or bowl for washing the face and hands, usually placed in a bathroom.

Leader—A vertical metal pipe to carry off water from roof gutters.

Light—A division of space in a sash for single pane of glass; also a pane of glass.

Lintel—A horizontal piece over a door or window opening to give added support to the wall above. It may be of either wood or metal.

Louver (loo′-ver)—An opening with a series of horizontal slats to permit ventilation but exclude rain.

Marquetry (marr′-kett-tri)—A kind of mosaic or inlaid woodwork. Usually applied to flooring.

Miter (my′-ter)—Also Mitre. The joining of two pieces at an angle.

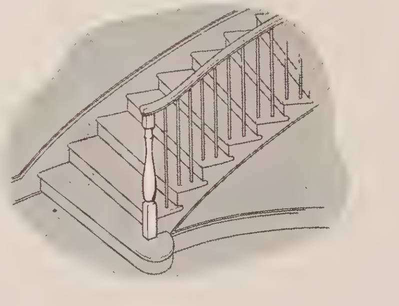
Mosaic-Work (mo-zay-ick)—Ornamental work formed by inlaying small pieces, usually in the form of cubes.

Moulding—Also Molding. A term applied to all the variations of outline or contour, whether projections or cavities, such as cornices, bases, door and window jambs and heads, etc.

Mullion (mull′-yunn or mull′-ee-on)—The division between the lights of windows, screens, etc.

Muntins (munn′-tins)—Small divisions separating panes of glass in a window.

Newel (nu′-el)—The central column around which the steps of a circular staircase wind. Also, the upright posts at the bottom, on the landings and at the top of stairways, usually receiving the stair rail.



Nosing (noze′-ing)—The prominent edge of a moulding or drip. Often applied to the projecting moulding on the edge of a step.

Palladian Window (pal-lay′-di-an)—Three adjoining windows, the central one having an arched head.

Panel—A distinct portion or section of a surface, as in a door. Usually sunk below the general surface immediately surrounding it.

Panelboard—An upright board to which is fastened the fuse box controlling the electrical system in the house.

Parapet (pare′-a-pet)—A low wall or similar barrier to protect the edge of a platform, roof, bridge, etc.

Pediment (pedd′-i-ment)—The triangular space forming the gable of a low-pitched roof, usually used as a decoration over doors, windows, etc.

Pilaster (pill-last′-ter)—A vertical feature in the shape of a square column, but projecting only slightly from a wall, and supporting the entablature.

Plate—A general term applied to practically all horizontal timbers which are laid upon walls, etc., to receive and support other timbers, especially the ends of rafters.

Plinth—The projecting course of stone or brick in a wall immediately above the surface of the ground.

Plinth Block—The lowest square member of the base of a column.

Purlins (purr′-linns)—Also Perlings. The horizontal pieces of timber which rest on the main rafters of a roof and support the common rafters.

Quoin (koin)—The exterior angle of a building. Also, stones or other material laid successively above each other at the corners of a building.

Rafters—The inclined timbers, forming the basic roof construction, which meet at an angle at the top and on which the laths or boards are nailed to carry the external roofing.

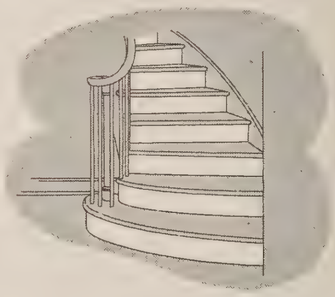
Rails—Horizontal pieces of timber in the framing between the panels of doors, wainscoting, etc.

Reveal (re-veel′)—The side of an opening for a window, doorway, etc., between the framework and the outer surface of the wall.

Ridge—The upper angle of a roof.

Ridge Board—Also Ridge-piece, or Ridgepole. The highest horizontal timber in a roof to which the rafters are framed.

Riser (rye′-zer)—Also Raiser. The vertical surface of a stairway as distinguished from the horizontal surface, which is called a tread or step.



Rubble (rubb′-ull)—Also Rubble-work or Rough-walling. Coarse walls constructed of rough stones, not large, but of great irregularity, both in size and in shape.

Scaffold—A temporary erection of timbers and planks for the use of workmen in building walls or erecting any work which they cannot otherwise reach.

Scantling (skant′-ling)—The term applied to any piece of timber under five inches square.

Scarf-Joint—A joint made by joining, bolting, welding or otherwise fastening together transversely two pieces of material so that they appear as one piece.

Scribing (skribb′-ing)—Fitting woodwork to an irregular surface.

Sheathing (sheeth′-ing)—The sub-siding, usually of rough lumber, to which is nailed the outer siding.

Shoe—The lowest member of a baseboard, set against the floor.

Sill of Headers—A series of bricks, laid with their ends exposed.

Sills—The horizontal pieces of timber, stone, etc., forming the bottoms of windows, doorways, or other similar openings; also the horizontal pieces of timber or plate at the bottom of wooden partitions; also the horizontal pieces of timber which support the studs of the superstructure.

Soffit—A ceiling or the lower horizontal face of anything, such as the underside of an arch, where the thickness is seen.

Soil Stack—The vertical pipe that receives the discharge from plumbing fixtures.

Soldier Course—A vertical course of bricks with edges exposed.

Spandrel (span′-drell)—The triangular spaces included between the arch of a doorway, etc., and a rectangle formed by the outer mouldings over it; also, the term applied to other similar spaces included between arches, etc., and the straight-sided figures surrounding them.

Stile—The upright piece in framing or paneling.

Stool—The flat piece, corresponding to the sill of a door, against which the window shuts.

String Board—The board placed next to the well-hole in wooden stairs, holding the ends of the treads. The string piece is the board under the treads and risers, forming the support for the stairs.

Strut—Also Strutting-piece. In carpentry, any piece that keeps two other pieces apart; in contradistinction to a tie, which keeps two pieces together.

Studs—Also Studding. The intermediate posts in partitions and walls, usually 2 by 4 inches.

Tail Trimmer—The trimmer next to the wall, into which the ends of joists are fastened to avoid flues.

Templet (tem′-plit)—Also Template. A pattern or mould used by workmen, especially by masons and bricklayers, as a guide for the shape of their work.

Transom (trann′-summ)—A horizontal mullion or crossbar in a window.

Trellis—A crossbarred lattice, usually used as a support for running plants.

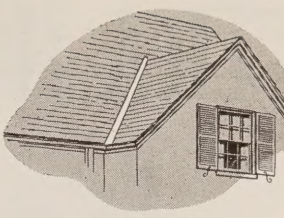
Triglyph (try′-gliff)—Decorative blocks in the frieze of a Doric entablature.

Trimmers (trimm′-ers)—Double or triple joists or timbers for framing an opening. Support for headers.

Truss—The collection of timbers forming one of the principal supports in a roof, framed together so as to give mutual support to each other and to prevent sagging or distortion. Wooden partitions and other carpentry work frequently are strengthened with trusses.

Tympanum (timm′-pan-numm) — The recessed face of a pediment, usually triangular in shape.

Valley—The term for internal meeting point of roofs sloping at right angles to each other.



(See bottom of second column)

Vent—A pipe connecting with the soil stack, and supplying air to prevent siphonage or back pressure at plumbing fixtures.

Wainscot (wane′-skutt)—To line with boards or panels.

Water Table—Also Dripstone, or Label, or Hoodmould, or Weather-moulding. A projecting table or moulding over doorways, windows, etc., to throw off the rain.

Weather Strip—A narrow strip of wood or metal placed over crevices, as at doors or windows, to exclude rain, wind, dust, cold air, etc.

Reference List

HERE is a brief list of books helpful to home-builders if you wish to do additional reading and reference work before starting to build. *Better Homes & Gardens* will be glad to obtain any of these books for you at the price listed. (Coupon on next page.) Please give both title and number, as well as price, in ordering. If you desire a more comprehensive list of all sorts of publications of interest to the home-builder, send a 3-cent stamp to "American Builder and Building Age," Simmons-Boardman Publishing Corporation, 30 Church Street, New York City.

R-1 Home-Owners' Property Records (1939), 26 pages, 8½ x 11, loose leaf. Legal forms to protect the home-owner in each phase of a building program; simply worded for easy understanding; accepted in any court when properly filled out. Price, 50c.

R-2 The Practical Book of Building, by Odd Albert, structural engineer (1939), 225 pages and 200 illustrations, 8½ x 11 in cloth binding. The sub-title is "The House of Health." Handbook on modern home construction; new building materials and methods of construction. Price, $2.

R-3 Planning the Little House, by Alice Wauch (1939), 281 pages, with illustrations; 6 x 9, cloth. A manual on the small detached house of moderate cost; problems of plans, designs, styles, interiors, and practicability. Price, $2.75.

R-4 The Human House, by Dorothy J. Field (1939), 130 pages, 16 pages of illustration; 7½ x 10¼, cloth. Explains basic principles of planning a new house or remodeling an old one. Tells how to determine needs for family, what compromises can be made, how to clarify ideas before going to an architect, etc. Price, $2.75.

R-5 Plan Your House to Suit Yourself, by Tyler Stuart Rogers, building-materials and equipment consultant (1939), 282 pages, illustrated; 7¼ x 9¼, cloth. Starting with an inventory of the family and its habits of life, the author helps the reader determine, room by room, what's needed to accommodate people, furniture, and equipment. Each chapter closes with a record form in which may be entered the family's carefully considered requirements and desires. Price, $3.50.

R-6 Without Benefit of Architect, by Frazier Forman Peters, architect (1937), 227 pages, 175 illustrations, 5¼ x 7½, cloth. Title is a misnomer, as the author *stresses the need of an architect in building a house.* Takes you thru the preparation and building, step by step—a number of separate chapters on various parts and parcels of the house. Chapter headings make a good guide. Price, $2.

R-7 More House for Your Money, by Elizabeth Gordan and Dorothy Ducas (1937), 320 pages, 70 illustrations and index, 5½ x 8¼, cloth. A complete popular exposition of building construction, told in breezy, interesting fashion. Detailed, practical advice is given on problems encountered when building a house. Money-saving suggestions are made on "extras," and how to obtain the best for the least money. Price, $3.

R-8 The Key for Home-Building and Repairing, by J. A. Gangnagel (1935), 84 pages, 150 illustrations; 5 x 8, paper. Contains forms of land contract, deeds, bonds, and mortgages; drawings of plans and elevations of a house; specifications and building-material lists; dictionary of terms; sections showing where building materials are used, and drawings of construction details. Price, $1.

R-9 National Small Homes Demonstration Homes (1939), 32 pages, illustrated, 12 in color, 8½ x 11, paper. Twelve modern designs of low-cost homes in natural setting, with floor plan and brief descriptions. Six of the houses are based on 1-story with 2 bedrooms; six on 2-story frame houses of five rooms. Advice is offered prospective home-owners on low-cost wood houses. Price, 25c.

R-11 Home Architecture, by Rexford Newcomb, Dean of the College of Fine and Applied Arts; and William Foster, Assistant Professor of Rural Architecture, University of Illinois (1932); 336 pages with illustrations; 6 x 9, cloth. A very good presentation of the fundamentals of residence design, construction, and equipment. Subjects are subdivided for convenient reference; each with a bibliography for further reading. Price, $3.25.

R-12 Air Conditioning, by E. W. Riesbeck, mechanical engineer (1939), 443 pages, 108 illustrations, 5½ x 8½, flexible binding. Written in non-technical language, it covers fundamental principles and describes different methods and all types of air-conditioning equipment. Price, $3.50.

R-13 Air Conditioning for Comfort, by Samuel R. Lewis, heating engineer (1938), 288 pages; illustrated; charts; 6¼ x 9¼, cloth. Explains the fundamentals of air conditioning clearly and exhaustively from the standpoint of the newest knowledge. Describes the latest methods of air conditioning and the newest equipment. Price, $2.50.

R-14 Household Equipment, by Louis J. Peet, head of Household Equipment; and Lenore E. Sater, Assistant Professor, Iowa State College (1935); 315 pages, 121 illustrations, 6 x 9, cloth. Chapters on kitchens; household equipment materials; fundamentals of electricity; fuels; ranges of various kinds; small equipment, electrical and non-electrical; refrigeration; laundry procedure; cleaning equipment; lighting; plumbing; heating; and ventilating. Price, $2.75.

R-15 The New Home-Owners' Handbook, by C. B. Smith (1938), 200 pages, 173 illustrations; 5½ x 8, paper. Complete guide to home repairs, remodeling, and building. Price, 75c.

R-16 When You Buy or Build a Home, by Arthur M. Weimer, Professor of Real Estate and Housing, University of Illinois, and John J. Rowland, Associate Professor of Architecture, Georgia School of Technology (1937); 163 pages, illustrated; 6 x 9, cloth. Authors were once engaged in private practice, and studied problems of thousands of home-builders and buyers. Advice is offered on how to avoid the pitfalls and to invest profitably in a house. Economic, legal, and architectural factors are taken up in turn. Price, $2.

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b g 19 **Fifty Successful Shrubs to Plant in the Northern States**—Complete table, giving the distance to plant, height, spread, flowering and fruiting seasons, as well as color of flowers and fruits. Price 4c.

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